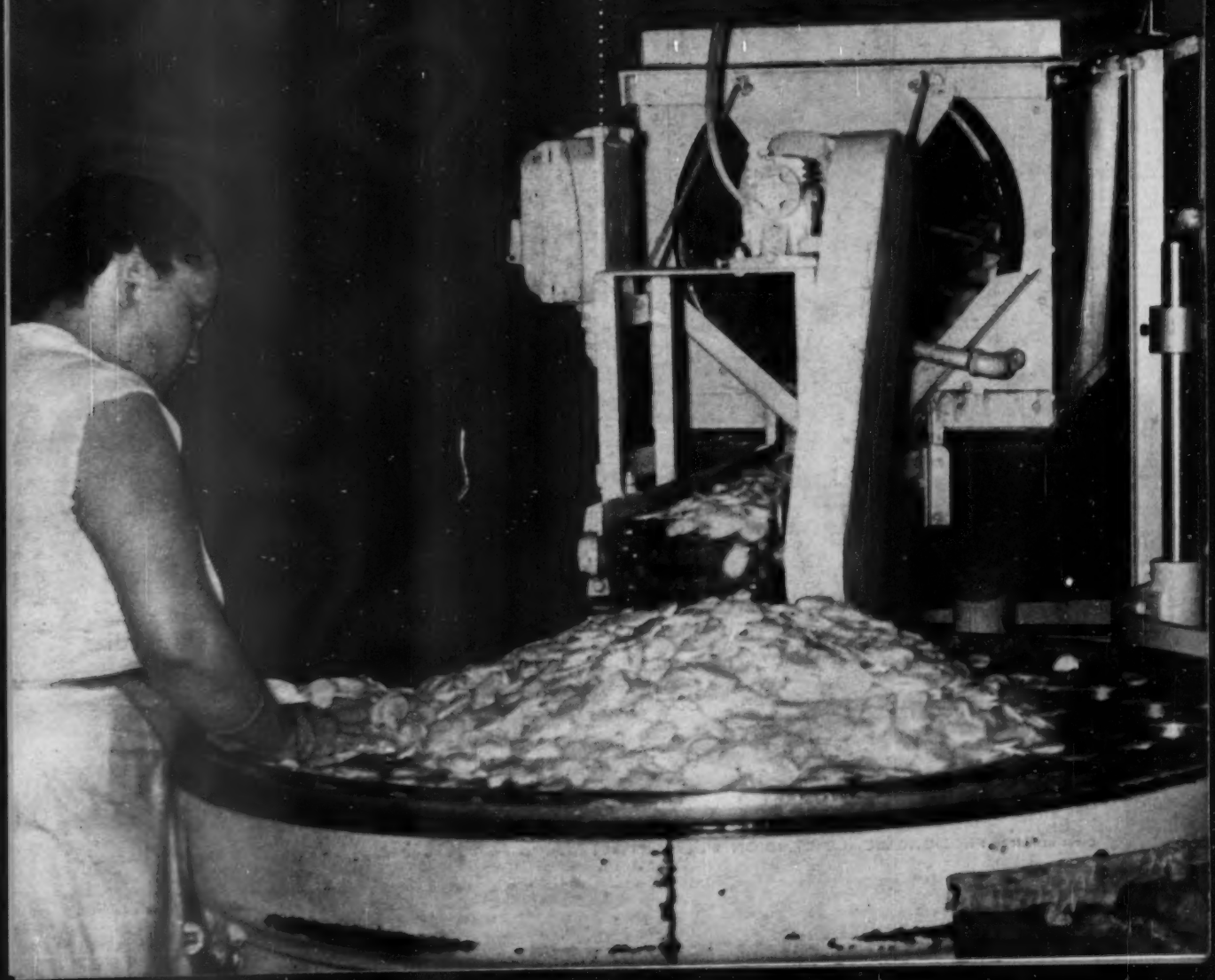
8
UNIV MICROFILMS INC
313 FIRST STREET
ANN ARBOR
MICHIGAN
T
C
J B O'N
SAMPLE COPY RATE

CANNER PACKER

CANNED FROZEN GLASS
a consolidation of
CANNER and FREEZER
FOOD PACKER
WESTERN CANNER and PACKER

AUGUST 1960

Pea-sphinxed vegetable freezer adds frozen pie to spruce his season 30
Australian tree nut is becoming a big thing in Hawaii 33
Heat-and-serve potato casserole in a can looks good to Indiana packer (Cover) 24



Keep Faith With Nature—Guard Her Goodness

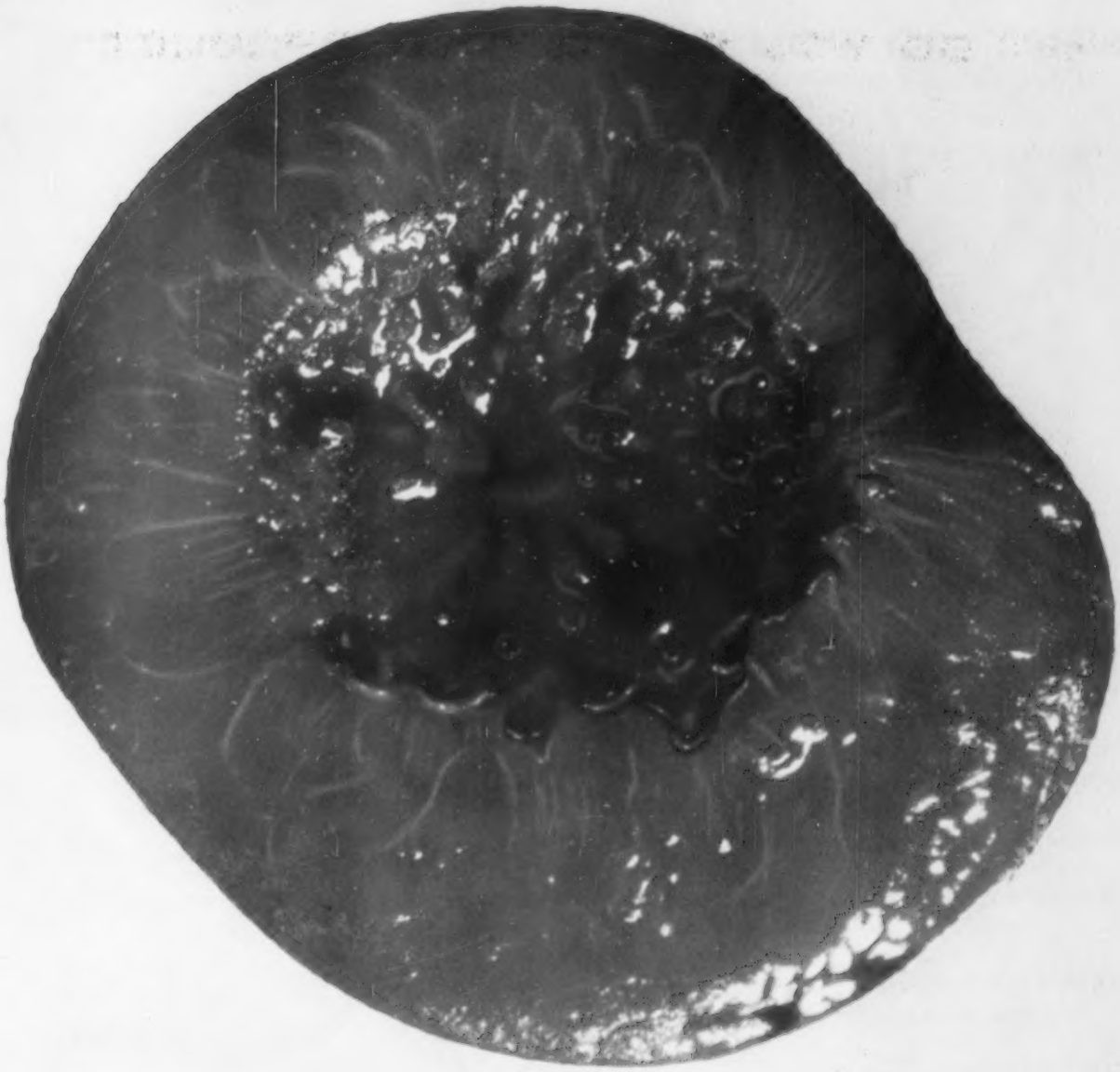
In your juice
or blend...

STANDARDIZE—*don't jeopardize*

Nature never standardizes the vitamin C content of fruits. Nature's never uniform. Uniformity varies. So standardize —don't jeopardize—juice uniformity.

Standardize on juice excellence, with Roche® vitamin C (ascorbic acid). Capitalize on quality. Give fruit juices and their blends: acceptable vitamin C levels, ripe-fruit-flavor richness, a nutritional label claim.

©1960 HLR INC. FINE CHEMICALS DIVISION **HOFFMANN-LA ROCHE INC.** Nutley 10, New Jersey



Firm texture, bright color, finer flavor–
canned fruits are naturally
superior when packed in...

GLOBE®
corn syrup

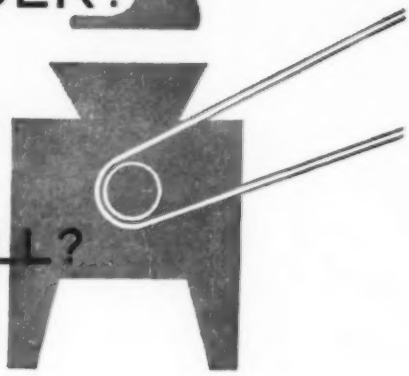
WRITE OR PHONE
Corn Products for expert technical assistance... helpful data on these fine products for Canners:
CERELOSE® dextrose sugar · REX® and GLOBE® corn syrups · BUFFALO® and SNOWFLAKE starches.

CORN PRODUCTS DIVISION CORN PRODUCTS SALES COMPANY • 9 East 55 Street, New York 22, N. Y.

WHAT DO YOU DO TO YOUR PRODUCT?

DO YOU
CRUSH IT
IN A
MEAT GRINDER?

DO YOU
SMASH IT
IN A
HAMMER MILL?



some people don't, you know,

some people cut their product into little dices.

PICKLES for the meat industry are now cut into ¼" or ⅜" cubes.

PICKLE RELISH of high quality is now cut into ⅛"cubes or pieces of ⅛" x ⅛" x ¼".

CHEESE is now being cut into little and big dices. Roquefort cheese is easily diced at a temperature of 10°F.

MEAT with little fibre content such as bologna is cut into small dices for sandwich spreads and other products.

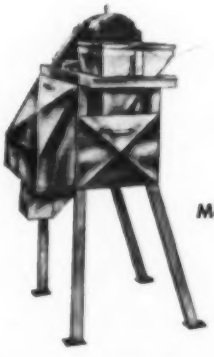
CHERRIES for ice cream dip or other purposes, are cut into little dices.

ALL KINDS OF FRUIT are cut into various small dice sizes for use in numerous products.

NUMEROUS PRODUCTS are now also being cut into julienne strips or thin slices with the "RA".

All of this is accomplished with the Urschel Model "RA" at capacities of up to 10,000 pounds per hour.

We'll be glad to test *your* product in our modern product cutting research kitchen. Write us today.



Model "RA" Dicer

URSCHEL
LABORATORIES INC.
VALPARAISO, INDIANA

Designers and manufacturers of precision, high speed cutting equipment for food products.

CANNER PACKER

volume 129, number 8 AUGUST 1960

Herbert A. Vance, Publisher

Editorial Department

Elverton B. Stark, Editor
500 Howard St., San Francisco 5
Telephone: EXbrook 7-1887

Dennis H. Murphy, Managing Editor
59 East Monroe St., Chicago 3
Telephone: Financial 6-7788

Walter N. Clissold, Eastern Editor
1319 F. St. N. W., Washington, D. C.
Telephone: METropolitan 8-6707

Lee J. Livingston, Northwest Editor
71 Columbia St., Seattle 4
Telephone: MAin 2-1626

Dr. Wilbur A. Gould, Technology Editor
993 Kilbourne Dr., Worthington, Ohio
Telephone: TUxedo 5-6045

Anne Chalmers, News Editor
Chicago

Business Department

C. Melvin Carlson, General Manager
59 East Monroe St., Chicago 3
Telephone: FInancial 6-7788

Charles C. Baake, Circulation Manager
500 Howard St., San Francisco 5
Telephone: EXbrook 7-1887

Margot Cohn, Production Manager
Chicago

Sales Representatives

Thomas Vought
370 Lexington Ave., New York 17
Telephone: MUrray Hill 3-8333

Norman Thomas
59 East Monroe St., Chicago 3
Telephone: FInancial 6-7788

Elverton B. Stark
500 Howard St., San Francisco 5
Telephone: EXbrook 7-1887

CANNER/PACKER is published monthly with two issues in September by **Triad Publishing Co.**, 59 East Monroe St., Chicago 3, Ill. Telephone: FInancial 6-7788.

Address all subscriptions and payments thereof, changes of subscription address, Forms 3579 and other subscription correspondence to Triad Publishing Co., 500 Howard St., San Francisco 5, Calif.

Second class postage paid at Chicago, Ill. and at additional mailing offices.

Herbert A. Vance, President

William B. Freeman, Vice-president

Paul E. Clissold, Secretary-treasurer

Subscription rate: U.S. and possessions, Canada, $5.00 per year, $8.00 for two years, $10.00 for three years. Other countries, $10.00 per year, $16.00 for two years, $20.00 for three years. Single copies 50c each, except annual Yearbook number at $1.00 each. Copies of issues prior to current year, if available, $1.00 each.

Address all display and classified advertising correspondence, orders and payments thereof to CANNER/PACKER, 59 East Monroe St., Chicago 3, Illinois. Advertising plates, cuts and inserts should be shipped to CANNER/PACKER, c/o Gibbs-Inman Printing Co., 817 West Market St., Louisville 2, Ky.

Copyright, 1960, Triad Publishing Company.

COVER: Butterfield Foods, Indiana canner, is successfully packing and marketing au gratin potatoes in canned form. In this picture the cans, already filled with a cheese sauce, pass through an FMC handpack filler to receive the sliced potatoes, and then swing away to receive sprinkles of chopped sweet red bell peppers. For more details on the canning process, readers should turn to page 28.

DEPARTMENTS:

Management's Big Stake in Safe Retort Practices 25
National Canners Assn. says that despite warnings many canners may be using improper procedures.

Butterfield Cans Au Gratin Potatoes 28
Butterfield Foods Inc., Muncie, Ind., has a heat-and-eat item that may revolutionize the company.

Vegetable Freezer Adds Pie Lines 30
Pennsylvania Frosted Foods Co., Southampton, Pa., packs both vegetable pot pies and frozen fruit pies for a longer season.

Macadamia Gears for Progress in Hawaii 33
Castle and Cooke, Inc. plans for mechanical harvest of tree nuts and a 3 million lb. market by 1964.

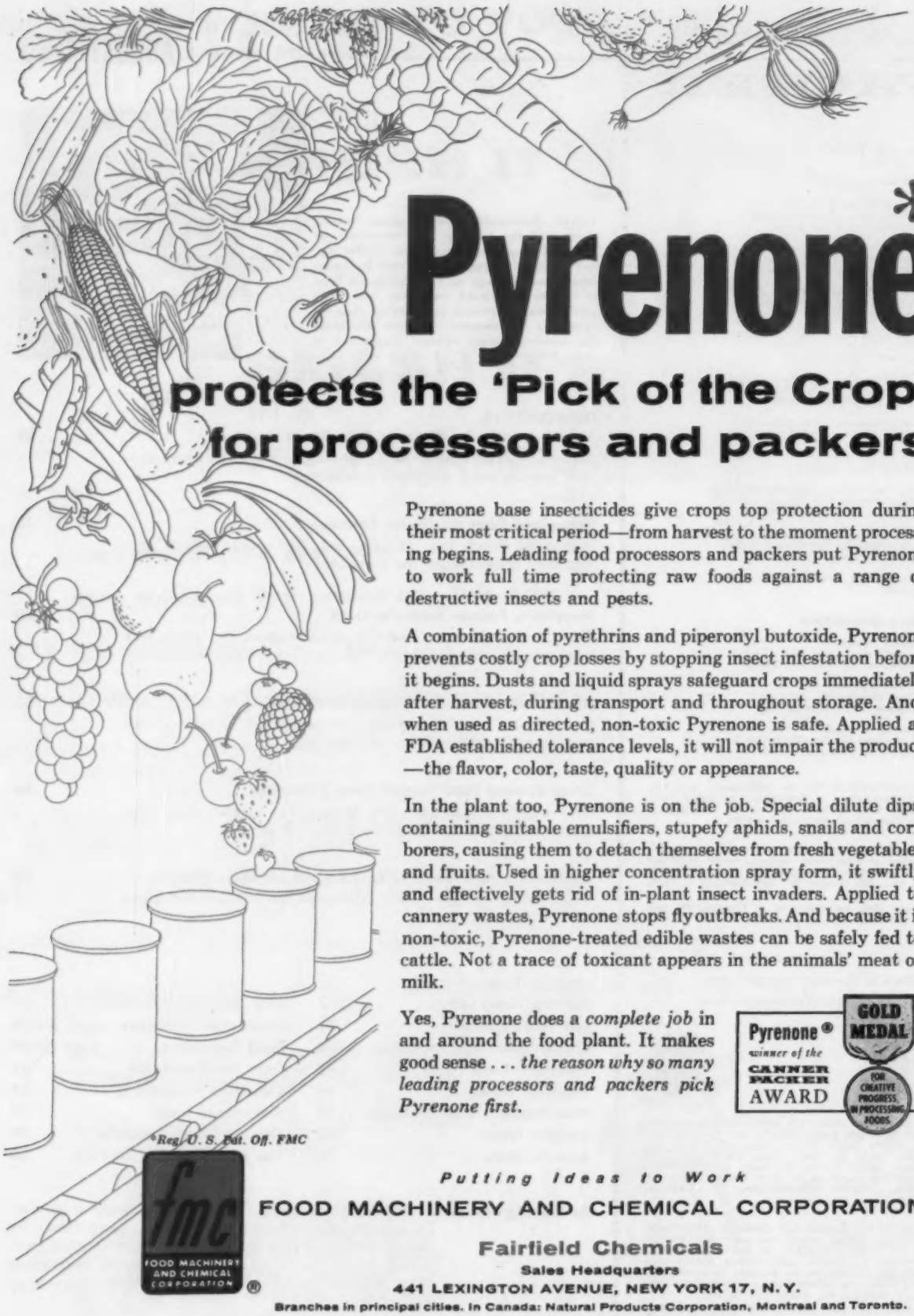
Iowa Glassed Food Packer Turns Distributor 36
Mrs. Clark's Foods, Inc., Des Moines, Ia., handles other noncompeting products with its own salad dressings.

EDITORIAL: How Good Is Your Record on Short Weights 60
Packaged foods have a firm reputation for honesty, but it can be lost by default.

SPECIAL DEPARTMENTS:

Business News Letter 7
Letters from Readers 21
Crops/Packs/Markets/Prices ... 38
Processed Food Prices 42
Suppliers News 44
New Products and Packages ... 48
Industry News 49
Raw Products 51
New Equipment/Supplies 53
Association Activities .. next month
Food Technology ..... next month
Food Merchandising 55
Classified Advertising 58
Advertisers Index 58
Coming Events Calendar 59
The Editor's Page 60

In Coming Issues: *In Minnesota, an independent preserve house is producing a better jelly with less equipment . . . Juice-drinks are still booming as Canner/Packer surveys production techniques, products and the market . . . Florida concentrate plant becomes almost automatic with the most recent of equipment.*



Pyrenone*

protects the 'Pick of the Crop' for processors and packers

Pyrenone base insecticides give crops top protection during their most critical period—from harvest to the moment processing begins. Leading food processors and packers put Pyrenone to work full time protecting raw foods against a range of destructive insects and pests.

A combination of pyrethrins and piperonyl butoxide, Pyrenone prevents costly crop losses by stopping insect infestation before it begins. Dusts and liquid sprays safeguard crops immediately after harvest, during transport and throughout storage. And, when used as directed, non-toxic Pyrenone is safe. Applied at FDA established tolerance levels, it will not impair the product —the flavor, color, taste, quality or appearance.

In the plant too, Pyrenone is on the job. Special dilute dips, containing suitable emulsifiers, stupefy aphids, snails and corn borers, causing them to detach themselves from fresh vegetables and fruits. Used in higher concentration spray form, it swiftly and effectively gets rid of in-plant insect invaders. Applied to cannery wastes, Pyrenone stops fly outbreaks. And because it is non-toxic, Pyrenone-treated edible wastes can be safely fed to cattle. Not a trace of toxicant appears in the animals' meat or milk.

Yes, Pyrenone does a *complete job* in and around the food plant. It makes good sense . . . *the reason why so many leading processors and packers pick Pyrenone first.*

Pyrenone® *winner of the* CANNER PACKER AWARD — GOLD MEDAL FOR CREATIVE PROGRESS IN PROCESSING FOODS

*Reg. U. S. Pat. Off. FMC

Putting Ideas to Work

FOOD MACHINERY AND CHEMICAL CORPORATION

Fairfield Chemicals

Sales Headquarters

441 LEXINGTON AVENUE, NEW YORK 17, N. Y.

Branches in principal cities. In Canada: Natural Products Corporation, Montreal and Toronto.

CANNER PACKER / BUSINESS NEWS LETTER
totally dedicated to serving canned, dry, frozen, glassed food processors

August 1960

U. S. processed food packers are not likely to experience sugar shortages or higher sugar prices as a result of Cuba's seizure of American property, and the resultant tougher U. S. policy on imports from the island. The 1960 quota has largely been shipped, and other Latin American countries, plus domestic production capacity, are expected to be ample to replace whatever is no longer received from Castroland.

Pictures of food removed from the package, or before it went in, are the most appealing material for retail advertisements, a study made by the Chicago Daily Tribune reveals. Eighteen per cent of a group of women shoppers rated such vignettes most interesting in ads they inspected. Next, in order of interest, were: Price lists (11%), price headlines (10%), good eating themes (10%), contests (8%), product stories (8%) and specials (8%). Product hints and recipes rated interesting with only 6%, but significantly this was six times as much space as the ads had given to this sort of material.

Expenditures for new plant and equipment by U. S. food and beverage firms are expected to total $2.9 billion dollars in the first nine months of 1960, against 42.45 billions in the like period of 1959 and a total of $3.3 billions for the whole of last year. This is reported in Business News Reports, a publication of U. S. Department of Commerce.

West Germany has a food additive which became effective the first of this year. Like the U. S. amendment, it now establishes the principle that all food additives not expressly authorized are prohibited. The government's minister of the interior has wide latitude in application of the law, and its effect upon imported and domestic food production, therefore, still remains to be seen.

Many processed food packers which distribute their products in their own trucks to retail and institutional outlets are also becoming jobbers of other non-competitive lines, setting up warehousing for the purpose and adding additional highway vehicles. The experience of one such firm in Iowa is described in the August issue.

More U. S. processed food firms will be establishing foreign affiliates or subsidiaries. Calpak has added two new overseas operations, Beatrice Foods has taken its initial plunge (in Malaya), Gerber has two new overseas partners and is expanding its operations in other foreign lands.

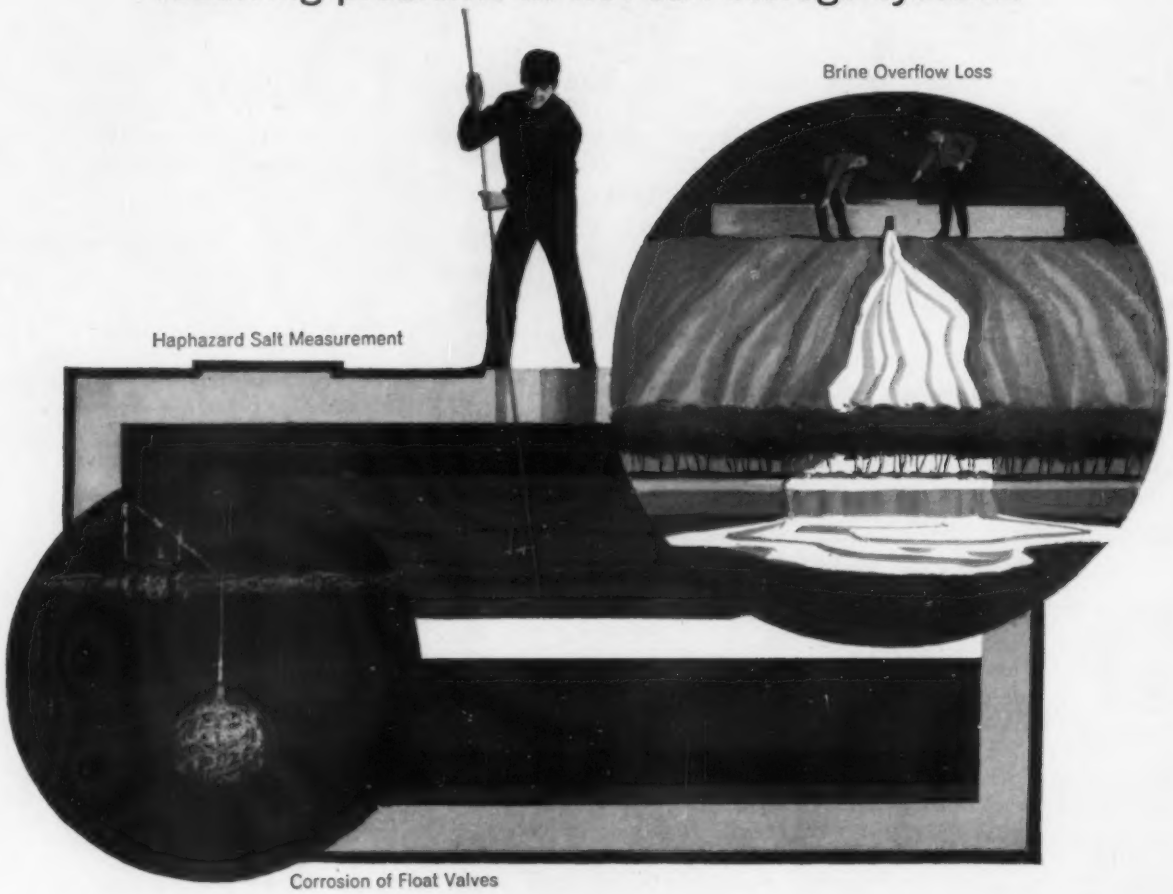
Eggs in the coffee may be coming back into fashion, after losing out to the automatic coffee-makers. A patent has been granted for a formulation of instant dry coffee and an egg derivative which is said to give the reconstituted beverage a much richer coffee flavor. The patent has been assigned to two coffee firms, one each in Chicago and New York.

U. S. milk solids consumption continues to remain steady, at around 48 lbs. per capita, but milkfat usage has declined from 32 to 26 lbs. in the last 15 years, USDA reports. Milkfat consumption is now at an all-time low in the country. But frozen dairy desserts, cottage cheese and nonfat dry milk solids are being used in record amounts.

New construction: Swift and Co. will build a new plant at Rochelle, Ill. Sara Lee, Inc., frozen bakery products firm in Chicago, will build research center.

Let Morton help you solve these problems in using salt

New MORTON LEVETROL* system solves these recurring problems in wet salt storage systems



Levetrol is a liquid level control method which automatically replaces water needed in wet salt storage systems in proportion to salt withdrawn in brine form. ¶ Adaptable to most wet salt storage systems, Morton Levetrol protects you from salt losses due to brine overflow by constantly balancing the water level to the salt bed level. ¶ Levetrol also eliminates the troublesome problem of corroding float valves. The simple, dependable Levetrol control system is installed on water lines located away from the wet salt storage. This completely avoids costly corrosion problems and assures you proper brine strength at all times. Levetrol enables you to have complete automation and consistent regeneration of your water treatment system.

*pat. applied for

New Morton "Fluitron" assembly ends gravel problems in your brinemakers.

The all-plastic "Fluitron" is an exclusive Morton brinemaking device which creates exceedingly high brine make-up rates and completely eliminates the need for gravel supporting beds when dissolving high-purity fine grained salts. The "Fluitron" insures a pure, saturated brine when used with Morton '999' or Purex all-soluble salts. The Morton "Fluitron" diffuses water through the salt bed and also collects the brine for discharge to the brine-use system. By eliminating the gravel bed and expanding the salt capacity of your dissolving vessel, the "Fluitron" relieves you of the job of frequent salt charging.

Adaptable to most brine make-up tanks, the "Fluitron" is included with Morton Model E Brinemaker series or you may acquire it individually on convenient leasing terms.

Morton Brinemakers are now available in two corrosion-free materials—stainless steel or plastic.

Morton offers you help in solving problems in design, modification, installation or operation of brinemaking equipment.

All of these problems can be solved with the counsel of one of Morton's Brine Engineers. Their experience with all types of salt for brine using processes can provide you with fresh ideas and the latest techniques in solving these problems. Many architects, engineers and plant superintendents already have found that calling upon a Morton engineer can save time and money.

Problems of salt selection, delivery and handling, can be easily solved by talking to a Morton man. He can tell you which of 100 different grades of salt will do the best job for you. What's more, Morton's nation-wide service and production facilities assure you dependable delivery of the salt you need in the quantity you want, anywhere in the country.

Mail coupon today for information on how Morton can help you solve brine make-up problems!

☐ Please send booklet on Levetrol System. ☐ Please send booklet on new Morton "Fluitron" and Brinemakers. ☐ Please have a Morton Brine Engineer contact me regarding:

(type of problem)_____

Name_____

Title_____

Company_____

Address_____

City_____ Zone_____ State_____

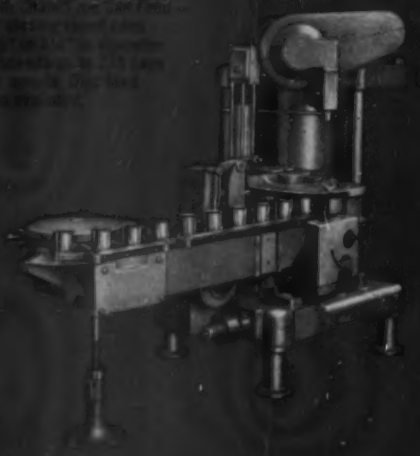
MORTON SALT COMPANY

INDUSTRIAL DIVISION

Dept. CP8. 110 No. Wacker Drive, Chicago 6, Illinois

Which ANGELUS CAN CLOSER *for you?*

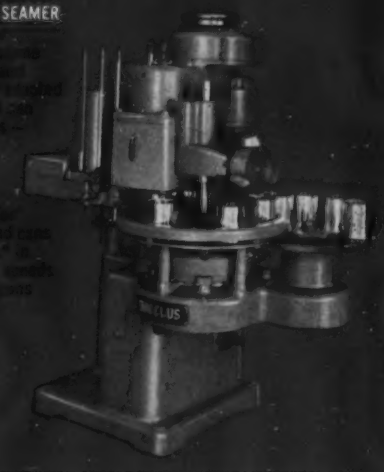
MODEL 40P-MSLF SEAMER



MODEL 50P SEAMER

MODEL 60L SEAMER

MODEL 10P SEAMER

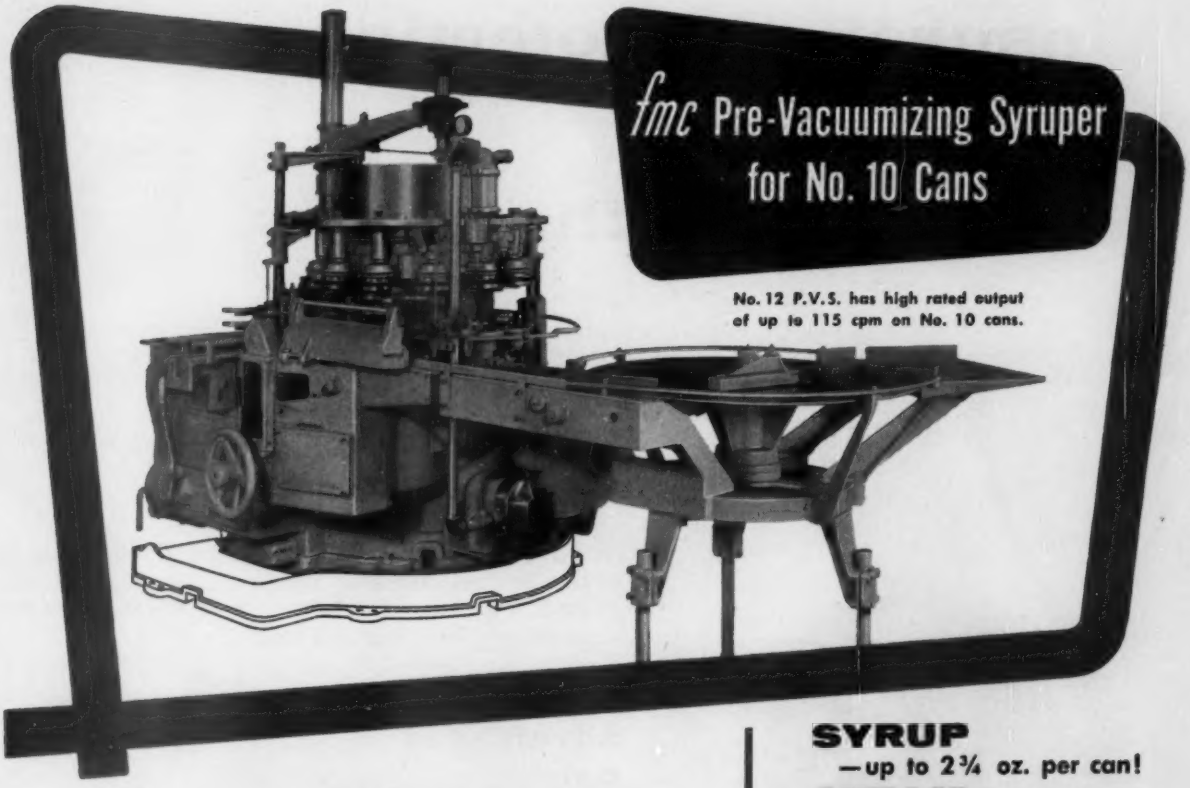


WRITE TODAY for complete details. Specify products, can dimensions and your capacity requirements.

ANGELUS

Sanitary Can Machine Company

Cable Address "Angelmaco" Western Union Code
4900 Pacific Boulevard • Los Angeles 58, Calif.



fmc Pre-Vacuumizing Syruper for No. 10 Cans

No. 12 P.V.S. has high rated output of up to 115 cpm on No. 10 cans.

Save 3 Ways

SYRUP
—up to 2¾ oz. per can!

STEAM
—eliminates exhaust boxes!

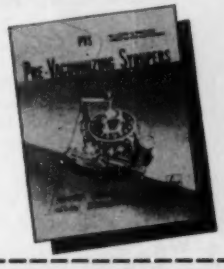
SPACE
—40 to 80% less!

Now you can speed up your syruping, greatly improve filling accuracy, and effectively remove entrapped air—all at a savings so great that this new FMC Model No. 12 Pre-Vacuumizing Syruper will more than pay for itself in a short period of high volume packing.

You reduce steam requirements up to 1,000 lbs. per hour, not to mention excessive maintenance costs, by completely eliminating the exhaust box system.

Carefully controlled filling accuracy to the exact predetermined headspace, and only *one* transfer of the filled can, means the end of syrup spillage and waste—as well as slack-filled cans. *Comparative tests show a savings in syrup of up to 2¾ ounces per can!*

Smaller can sizes, from 211 to 404 diameter, 300 to 704 height, are handled with comparable efficiency on the FMC Model No. 18 PVS, at speeds up to 275 cpm. Use the coupon to get new bulletin fully describing both of these great PVS models.



Bulletin 801-W is yours for the asking. Just fill out the coupon and mail today. For prompt reply, address office nearest you.

Putting Ideas to Work

FOOD MACHINERY AND CHEMICAL CORPORATION
Canning Machinery Division
General Sales Offices:
WESTERN: SAN JOSE, CALIF. • EASTERN: HOOPESTON, ILL.

FOOD MACHINERY AND CHEMICAL CORPORATION
Canning Machinery Division
P.O. Box 1120, San Jose 8, Calif.
103 E. Maple St., Hoopeston, Ill.

☐ Please send me your Bulletin No. 801-W on FMC's Pre-Vacuumizing Syruper.
☐ Have your representative call.

NAME _____ TITLE _____
COMPANY _____
ADDRESS _____
CITY _____ ZONE _____ STATE _____

insurance protection...

geared to the needs

of the industry...

For 53 years, CANNERS EXCHANGE has been totally geared to serving the Food Processing Industry . . . providing the best source of protection against Loss . . . with policy forms and coverage designed to fit individual needs.

here are advantages only CANNERS EXCHANGE can provide for your insurance program:

- Broad and comprehensive NON-ASSESSABLE policies.
- Personalized service from the Warner trained field staff.
- Cooperative, sympathetic handling and prompt payment of loss claims.
- Lowest net costs — consistently —for the industry.
- Outstanding safety protection and rate engineering service.
- Modern, efficient canned goods reconditioning service.

Why not gear these CANNERS EXCHANGE advantages into your insurance program? Write us, **today.** No obligation, of course.

Canners Exchange

managed by

LANSING B. WARNER, INC.

4210 PETERSON AVENUE, CHICAGO 46, ILLINOIS

53 YEARS OF SPECIALIZED, DEPENDABLE INSURANCE

FLO-SWEET SUCRODEX...the "tailor-made" quality sweetener

The big news in liquid sugar blends is *quality!* With Flo-Sweet Sucrodex, you get sucrose and dextrose equal in purity to top quality sucrose—water white, low in turbidity, practically ash free—and in the exact proportions you prefer.

Commercial availability of high-purity Sucrodex opens up vast new fields for progressive food manufacturers as it pushes through a barrier to new quality in foods. Improved taste and texture . . . quality that enhances and retains food flavor over a longer shelf life . . . these are just a few of the assets attracting more and more processors to Sucrodex.

Bottling, ice cream and baking producers can develop new formulations calling for dextrose. In canning, packing, fountain syrups, wineries and many other uses, Sucrodex provides welcome new quality/cost ratios.

Sucrodex is just one of the new Flo-Sweet sugars developed to help you cash in on the swing to new food products. For full information, consult your Flo-Sweet Engineer or write for the brochure "New Ingredients for New and Improved Food Products." It tells all about four new Flo-Sweet liquid sugars!

SEE HOW VERSATILE SUCRODEX IS!

Flo-Sweet Sucrodex is produced in the following standard ratios: 80/20, 85/15, 90/10. Other blends are readily available to meet specific requirements. Your Flo-Sweet Engineer will be glad to consult on similar blends of sucrose and corn syrup.

REFINED SYRUPS & SUGARS, INC.

YONKERS, NEW YORK

SERVING INDUSTRIAL SUGAR USERS EXCLUSIVELY
FROM YONKERS, ALLENTOWN, DETROIT, TOLEDO

FLO-SWEET®

FIRST IN LIQUID SUGAR

CONTINENTAL SCIENTISTS WHO WORK FOR YOU

When product protection calls for better enamels
Continental customers get them first

For many products, electrolytically-deposited tin is the only lining a can requires. Enamels offer additional protection for a growing variety of products. Continental's Metal Division Research and Development Center calls on the skills of the coatings chemist for their development.

New materials and methods of adapting them to containers are constantly being developed and each is studied for potential use in our industry.

More than 2000 different enamels have been formulated and tested in the past five years alone. Some 140 are now regularly used to maintain the high level of packaged product quality expected by today's consumer.

Coatings chemists are also working to increase speeds of enamel application in preparation for ultra-fast enameling of coil stock. More recently, they have been adapting their findings to the important new area of aluminum cans.

As a Continental customer you can be sure that the best in scientific manpower, facilities and equipment are always working for you.

CONTINENTAL CAN COMPANY

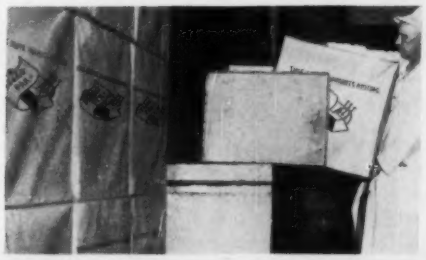
Eastern Division: 100 E. 42nd St., New York 17
Central Division: 135 S. LaSalle St., Chicago 3
Pacific Division: Russ Building, San Francisco 4
Canadian Division: 790 Bay St., Toronto 1
Cuban Office: Apartado 1709, Havana, Cuba

Cromwell can bags protected with Ferro-Pak rust inhibitor save money for major meat packer

One of the country's largest packers of hams and luncheon meats found that they were losing a considerable number of cans in storage due to rust. Those cans remaining in broken bags after a production run had been completed, or during intervals in production, often had to be stored for periods ranging from overnight to several months. Such exposure created a rust problem that made the cans unsatisfactory for use.

The can supplier, always mindful of the importance of quality control through all stages of the canning and packing operation, worked with CROMWELL to find a solution. The result was a CROMWELL can bag protected with Ferro-Pak rust inhibitor.

Ferro-Pak inhibits condensation . . . prevents rust . . . by inactivating the corrosive action of oxygen and moisture.



If you are experiencing a rust problem in storage of tin cans, ask your supplier about Ferro-Pak treated can bags, or write:

Cromwell PAPER COMPANY

180 North Wabash Avenue, Chicago 1, Illinois. DEarborn 2-6320

MANUFACTURERS OF: Papers (Impregnated · Coated · Laminated · Reinforced Flexible) · Bags · Sacks · Liners · Covers · (Single and multiwall construction, using all types of material to carry, cover or protect all types of products.)

"CONTENT CONTROLLED" Lord Jeff MEAT®

PROVES BIG PRODUCTION SAVINGS

AT ONE OF NEW ENGLAND'S LEADING SAUSAGE MANUFACTURERS

A totally new way to make added profits in Meat Manufacture is waiting for you. This method began with Lord Jeff "Content Controlled" Meat® and is proved, consistently, in the laboratory of the Columbia Packing Company of Boston, a valued Lord Jeff customer.

Columbia's precise laboratory control records prove, month after month, that the desired lean content of Lord Jeff "Content Controlled" Meat which it orders, is six to ten times more accurate than the average of other suppliers. ***Columbia's equally precise production control records have proved substantial savings due to the fact that the lean content of Lord Jeff Meat was significantly higher. It is evident that every 2% increase in lean content is worth at least $1.00 per c.w.t.***

The substantially increased protein content resulting from the accuracy of Lord Jeff lean content control has continually allowed more flexibility in the addition of moisture. ***At an average product value of 50c a pound every 2% of increased moisture content obviously achieves an additional 1c a pound or $1.00 c.w.t. saving.***

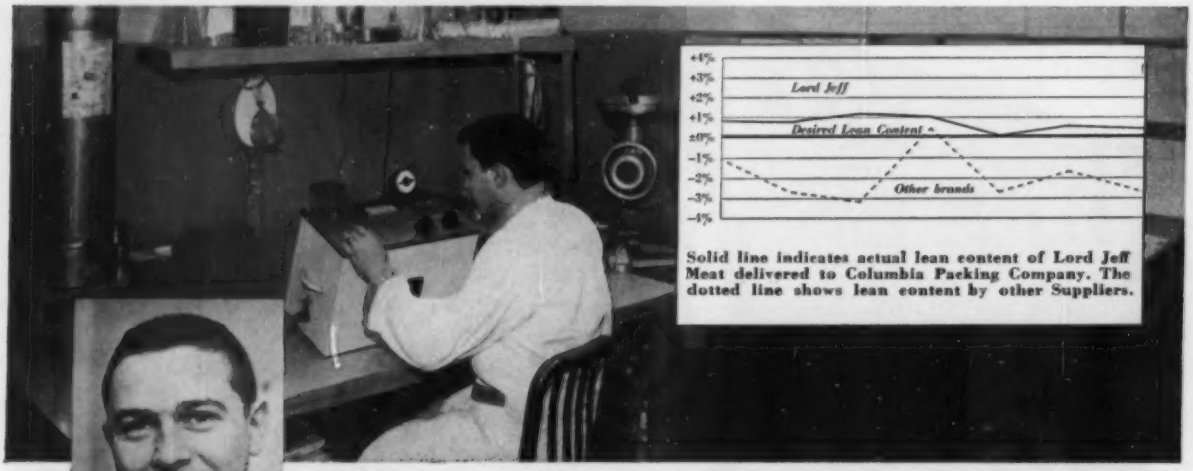
Yes, Lord Jeff "Content Controlled" Meat has proved savings for Columbia Packing Company . . . and Lord Jeff product consistency (never below desired lean content by laboratory test) guarantees that these savings continue to provide enormous competitive advantages to growing numbers of manufacturers who insist on Lord Jeff "Content Controlled" Meat Products.

Naturally, Lord Jeff's higher protein content ratio to desired lean content results in higher nutrition value, better color and taste. Thus, with Lord Jeff's savings manufacturers can prove that, ***at the same price, they offer more nutrition and better taste than their competitors . . . and also make more money doing it.***

For these reasons Lord Jeff backs every shipment of its "Content Controlled"® Meat Products with the industry's only totally risk-free,

Guarantee: ***Test Lord Jeff Meat at any independent food laboratory. If lean content is not as specified by you, we will pay the laboratory fee and refund cost of meat returned.***

Increased profit in Meat Manufacture must require more exacting standards of production control . . . increased laboratory precision in evaluating their meat purchases. More and more, the answer is Lord Jeff "Content Controlled" Meat. If you are a volume producer of manufactured meat products a note or phone call to Lord Jeff will start the cooperative effort between your company and ours so essential to delivering these savings.



Solid line indicates actual lean content of Lord Jeff Meat delivered to Columbia Packing Company. The dotted line shows lean content by other Suppliers.

The photo above is one view of the laboratory and production control center of the Columbia Packing Company in which Lord Jeff Meat is tested. (Photo Left, Mr. Carl Rosenberg, Div. Industrial Engineering, Columbia Packing Company).

SOMERVILLE DRESSED MEAT COMPANY

PHONE GArrison 7-3700

128 Newmarket Square, Boston 18, Massachusetts

Mr. Leonard Katzman unloads cherries from the USS Cyclone Conveyor Belt.

"A USS Cyclone Conveyor Belt helped us triple production."

"We recently increased our production of bottled maraschino cherries on several trial runs by installing some new processing machinery and a USS Cyclone Belt," says Mr. Fred Weinspach, plant manager of Vita Food Products, Inc., New York City. "The new equipment includes an automatic packer, a capping machine, a pasteurizer fed by the conveyor belt and an automatic labeller.

"We used a USS Cyclone Belt in our old operation, too, but the new one is almost twice as wide. We're glad to use Cyclone again, because after seven years of steady use in a submersion-type pasteurizer, the old Cyclone belt showed no depreciable wear and appeared as good as when originally installed. We had no trouble with it—no breaking or oxidation—and we don't expect any with this one."

The new conveyor belt made of USS Stainless Steel will be able to increase Vita Food Products' production without adding much more personnel. A USS Cyclone Conveyor Belt system would work for *your* profit, too. Send the coupon for information on Cyclone's wide variety of efficient, work-saving conveyor belts.

USS and Cyclone are registered trademarks

American Steel & Wire
Division of
United States Steel

USS

Cyclone Sales Offices Coast to Coast

American Steel & Wire
Dept. 0309, 614 Superior Ave., N.W.
Cleveland 13, Ohio

Please send me your free USS Cyclone Conveyor Belt booklet.

Name_____

Address_____

City_____ Zone___ State_____

Your challenge of the EXCITING 60's

—AVERAGE FAMILY INCOME $8,600!

LET ANCHOR HOCKING GLASS PACKAGE RESEARCH HELP YOU CAPTURE A BIGGER SHARE OF CONSUMERS' DOLLARS IN THE 60's!

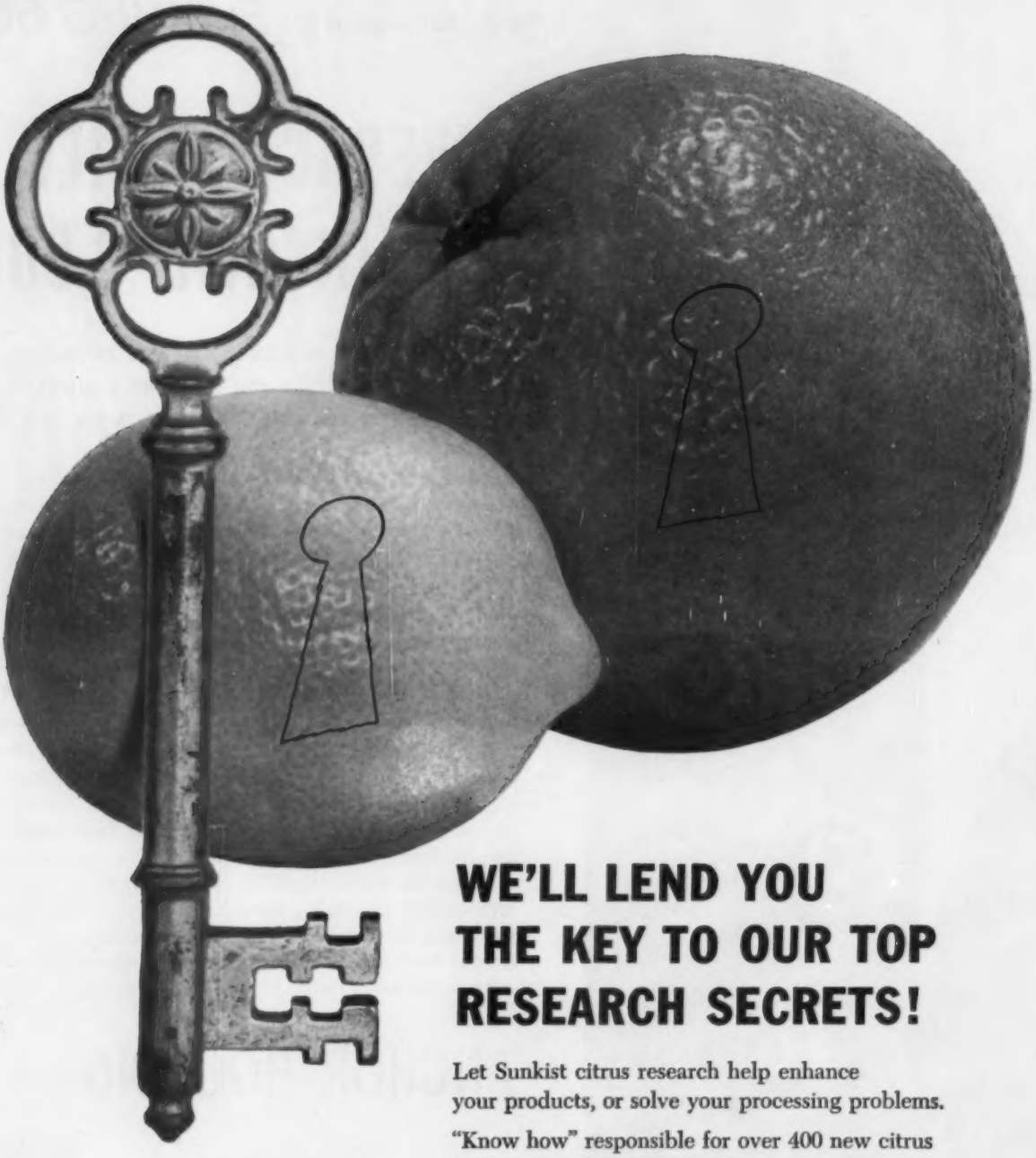
Wage studies indicate that income levels during the 1960's will spurt to a new high . . . close to $8,600 by 1965. Families with this new "wealth" will be shopping for more and more products to meet growing needs.

The share of dollars these families will spend on *your* products can be substantially affected by adoption of the glass package with all its appeal, convenience and protection advantages. To help you make the best use of *glass packaging*, Anchor Hocking offers the benefits of knowledge and techniques acquired through decades of continuing research.

Anchor Hocking research probes for new data, new applications to provide more dependable, efficient, convenient and economical glass containers and closures. It extends from the selection of the raw materials to the final inspection of the finished products. Basic and applied, qualitative and quantitative Anchor Hocking research results in dependable, high-quality packaging for your products—Anchorglass® packaging to help you meet your challenge of the 60's. Anchor Hocking Glass Corporation, Lancaster, Ohio—bringing you the extra values of *specialization* in glass packaging.

ANCHOR HOCKING

Get set for the exciting 60's with Anchorglass Packaging—put an Anchor Man on your team



WE'LL LEND YOU THE KEY TO OUR TOP RESEARCH SECRETS!

Let Sunkist citrus research help enhance your products, or solve your processing problems.

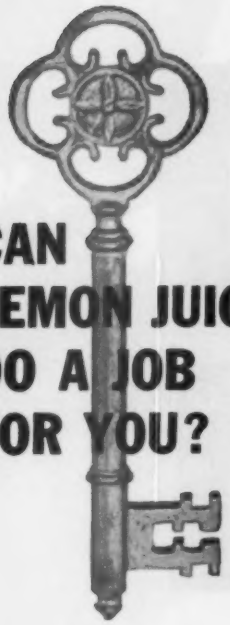
"Know how" responsible for over 400 new citrus products—and 118 U.S. patents on processes—is at *your* service.

It may be our files can supply formulas or technical data by return mail. On any problem, simple or knotty, Sunkist technical experts will be glad to work *with* you—in your own plant—or *for* you—in their own citrus research laboratory. Write, and a Sunkist man will call.

Exchange

Sunkist Growers

PRODUCTS SALES DEPARTMENT



CAN LEMON JUICE DO A JOB FOR YOU?

If you're a food processor... fresh, frozen or canned...fruits and vegetables...fish or fowl... lemon juice can do *at least* one thing for you:

- It can prevent or retard off-flavor tendencies...
- Maintain and even enhance natural food flavor—keep food fresh-tasting longer...
- Prevent oxidation, preserve color, texture and flavor during and after processing...
- Adjust acidity in low-acid foods–retard enzyme action...
- Replace salt in low-sodium diet foods...

And that's only a beginning. The list of jobs lemon juice can do is an extensive one.

If you're not using it...you may be letting the competition get a lead on you. Don't market a product that's merely "as good as" the rest. Exchange Brand Concentrated Lemon Juice—made by Sunkist—can often make it superior for only a penny or two—and add a selling ingredient of distinction to your label.

Why not let your Sunkist man talk it over with you?

The address: Sunkist Growers, Products Sales Dept., 720 E. Sunkist St., Ontario, Calif.

LETTERS FROM READERS

Is This AFDOUS Code Necessary

An article entitled "Thorough Research, Cautious Application for AFDOUS Code" appeared in the April issue of CANNER/PACKER. A few readers have taken time to inform us of their views.—Editor.

Great progress has been made during recent years in manufacturing, shipping, storing and handling of frozen foods. The industry has long recognized the importance of proper handling to insure the finest possible quality being delivered to the consumer. We do not recall that the frozen food industry, even in its early years, ever earned criticism for endangering public health.

In our opinion, the AFDOUS code should be viewed as an expression of the objectives which the frozen food industry has been striving to achieve in the past and will continue to try to achieve in the future on a voluntary basis. Industry leaders firmly believe that, while the goal exemplified by the code is a desirable objective, with some important modifications, it is not urgently necessary, would tend to substantially increase the cost of distribution. It would also seriously impede and impair the orderly and normal evolution methods and systems of distribution in the industry.

H. R. MATHIS

Vice president, Libby, McNeill & Libby, Chicago, Ill.

I am impressed by the scope of the undertaking and the amount of work it will take to get the AFDOUS code enforced. I think the code is a must if we intend to satisfy the consumer and to build a repeat business.

I would say that most of the time it is practical to maintain zero degrees on frozen foods. It is true there are exceptions to all rules, but on the whole I believe it is possible.

Quality and public health are tied up together to a great extent. Quality means giving the consumer all that is best in the product you have to offer at a given price. If products are not handled correctly, they are not quality products in the true sense of the word as they lose vitamin content, appearance appeal, flavor, and etc. You then have not given your consumer quality merchandise, and you have actually cheated him because he has lost the value promised in a good product so it then becomes a public health problem.

To the consumer any large producer holds a position of responsibility to the public as a good citizen and the more we as frozen food packers do to contribute to this feeling of protection and accepting our contingent liability of keeping good faith with the public and primarily protecting their food supply the better we as a group grow and prosper.

VIRGINIA WATJEN

Director of home economics, Morton Frozen Foods, Louisville, Ky.

Cranberries Regain Consumer Confidence

I am very happy to report that the final results from our NATION-WIDE SALE OF CRANBERRIES FOR EASTER are now in, and the tabulation shows we did quite well.

We believe that our pantry pipe line has now been pretty well replenished, and for the most part trade stocks are back to normal. This was brought about by an enormous amount of cooperation from all segments of the food industry during this big drive. Never before have we seen so many mentions of Ocean Spray in newspaper advertisements or as many displays at this season of the year.

I want to take this opportunity to thank you for the support you have given us in our trying times. It has been most helpful and encouraging. I particularly liked your editorial in your most recent issue contrasting Ocean Spray with the tactics taken by General Foods on their Gourmet line. Having spent 18 of my apprenticeship years at General Foods, this had a somewhat special significance to me.

AMBROSE E. STEVENS

Executive vice president and general manager, Ocean Spray Cranberries, Inc., Hanson, Mass.

Corrections

A number of readers have called our attention to the fact that two pairs of illustrations were transposed in the July issue.

In the report on the Institute of Food Technologists meeting, on page 49, Caption No. 15 describes Bausch & Lomb equipment, and Caption No. 16 refers to Buflovak's Roto-vak, but the pictures are in the opposite order.

On page 61, in the Industry News department, Mr. Ehrenfeld's name appears under Mr. Gallwey's portrait, and vice versa.

Our apologies to all concerned—Ed.

the first glass

container to

enter your lines

will, if it's

Tygart Valley

quality, be exactly

like the last

one off the lines

Uniformity is the key to Tygart Valley quality in glass containers

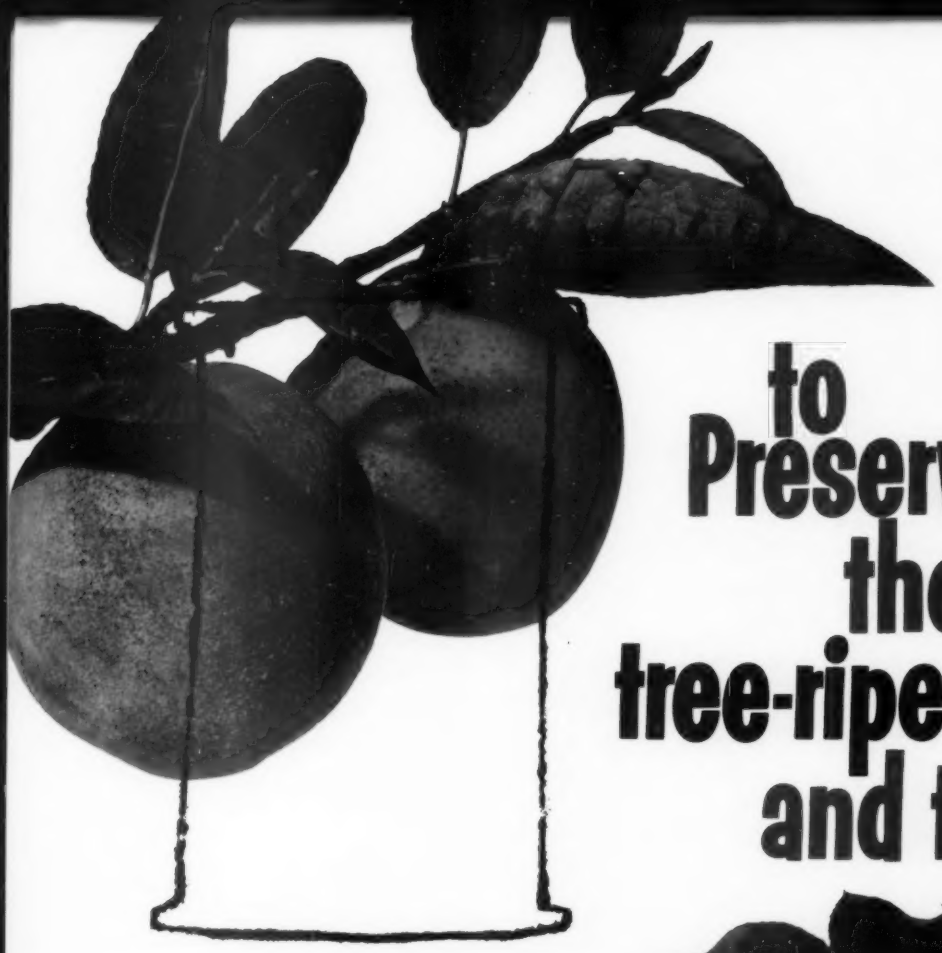
BROCKWAY GLASS

COMPANY, INC., Brockway, Pennsylvania

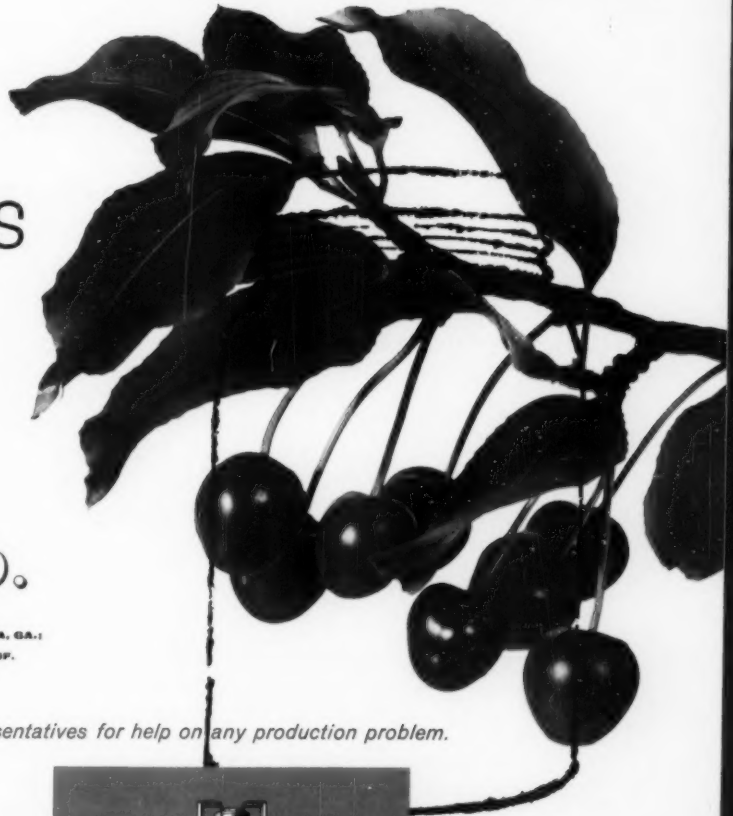
Sales Offices in Principal Cities

SUBSIDIARIES: Demuth Glass Works, Inc., Parkersburg, W Va.

Tygart Valley Glass Co., Washington, Pa.



to Preserve the tree-ripe flavor and texture...



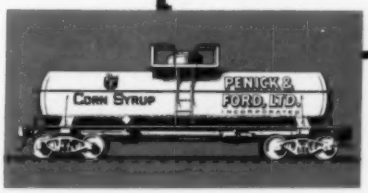
Penford Canners Corn Syrup

Penick & Ford

PENICK & FORD, LTD.
INCORPORATED

750 THIRD AVENUE, NEW YORK 17, N.Y.; 1531 MARIETTA BLVD., ATLANTA, GA.;
CEDAR RAPIDS, IOWA; 18 CALIFORNIA ST., SAN FRANCISCO 11, CALIF.

You can rely on our Technical Service Representatives for help on any production problem.



think of a number

think of a number . . .

how many seedlings per acre of tomatoes?
how many pounds of fresh water fish frozen?
how many cases of snap beans packed?

or think of a name . . .

who makes a v-belt drive?
who supplies closures for glass?
who tests new products?

it's in the 1960 CANNER/PACKER Yearbook Number

Around the first of November, in a thousand offices, in a thousand plants . . . the corners of the 1960 Yearbook will be a little dogeared, and the cover scuffed, and someone will have stuffed an old envelope in to mark the Gold Medal Awards section.

And by that time an old friend or two will have written us and said, it's the best Yearbook Number you have ever published.

And it will be too.

On September 15 we plan to have a Yearbook Number with the first announcement of the GOLD MEDAL AWARDS to the most outstanding equipment or supplies offered to canners and packers during 1960.

It will have more pages of statistics (and right now it is the most complete compilation published).

It will have the largest, most complete buyers' guide published in the food industry.

It will have the industry reports, the year-end summary commodity-by-commodity, written by outstanding men in each field.

It will have a special section on the tin can.

This is a desk encyclopedia for canners and packers.

It has also proven to be the most popular annual issue published for packer advertising. Not only does the packer advertise in this issue to reach potential customers of custom packers; he also reaches brokers, buyers, and a special audience of 3,000 of the top chain stores, wholesaler grocers, etc.

Deadline for ad space is Aug. 15.

CANNER/PACKER YEARBOOK NUMBER
A Review and Reference Volume for packers and distributors

Management's Big Stake In Safe Retort Practices

By D. V. ALSTRAND*
American Can Company
Maywood, Illinois

Surveys conducted in the last year by National Canners Assn., Washington, D. C., have noted some repeated infractions of good retorting practices. These include:

- Insufficient venting.
- Baffle plates in the bottoms of the retorts.
- Broken thermometers.
- Illegible thermometers.
- Failure to check thermometers and pressure gauges against standard instruments.
- Vent valves only partially opened.
- Inadequate steam spreader design.
- Use of globe valves instead of gate valves in the vent lines.
- Venting into a manifold with back pressure.
- No pressure temperature agreement between pressure gauges and thermometers.

The above mentioned conditions were observed most frequently. Other less frequent malpractices were:

- Incorrect process timing.
- Processing according to pressure instead of temperature.
- No bleeders on thermometer wells.
- Steam both entering and being vented at the same end of the retort.
- No steam spreaders.

Blame The Boss

Details regarding objectionable conditions such as those listed will not be given in this article. However, each N. C. A. retort surveyor is prepared to discuss any operating or equipment problem with a canner when a survey is made. Correct practices are discussed in N. C. A. Bulletins 26L and 32L.

Who is responsible for processing the output of a canning plant with deficient equipmnt, or by use of faulty methods? Basically, it is canning plant management. The Committee on Retort Equipment and Operation concluded that "Cook room operators must be carefully selected and must fully understand the importance of operating retorts. They must be instructed in the operation and be willing to follow these instructions. This is a *management* responsibility." It is a continuing responsibility of management since cook room men sometimes change quite often in the canneries.

The published article on "Canned Food Retorting—Why and How"† was prepared for management, and the N. C. A. Bulletin 32L also discusses the subject very thoroughly. It was also realized that the retort operator himself has to understand what he is doing and why, so an illustrated booklet was prepared specifically for the operator. Several of the illustrations from this booklet are included in this article.

Why Is Retorting Important?

Let's consider *why* retort operation is one of the most important jobs in the cannery and *how* to do it properly.

Why do we cook the food after it is in the can? All raw foods contain bacteria. If the raw food is not heated the bacteria will grow and spoil it. When a can is sealed, no more bacteria can get in and the retort cook kills those on the inside.

Swelling Danger Signs

If faulty retorting practices are used, some bacteria may survive the cook. Some bacteria produce gas which will make a sealed can swell or even blow up. Fortunately most housewives realize that a swelled can may indicate spoilage, and will not use the product.

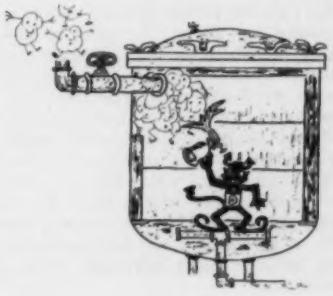
If all bacteria are killed, the canned food will keep. Heat kills bacteria—the higher the temperature, the shorter the time. For instance, a cook of 20 minutes at 250°F. does as good a job as 10 hours in boiling water.

Pure Steam Essential

Why use steam pressure retorts for processing? A high temperature is obtained with steam under pressure, but this must be pure steam, not steam and air. Air is a poor conductor of heat; in fact, it makes a good insulator. Steam from a teakettle spout with a temperature of 212°F. will just feel warm.

Get Rid of Air

When the retort is filled and closed, the space between the cans is occupied



*Member, NCA Committee on Retort Equipment

† See Canner/Packer for June, 1959, Page 36.

by air. This air must be blown out from among the cans before starting the process. Since this air is not a good heat conductor, it must be eliminated.

This is done by letting steam in at one end of the retort and letting the air out through the other end. This process is called venting. Steam must come in fast to blow out all the air, and the vent pipe must be big so that the air can escape easily. The vent valve must be wide open during venting or there will be a "traffic jam" and all the air won't get out. When all the air is out of the retort, it is time to close the vent, not before. Venting requirements for removing all air from your retorts are available.

When the retort reaches the cooking temperature, the "race" is on and the cook time can be started. The "race" is between heat and the bacteria, who can withstand the heat for a limited time.

When Cooking Begins

Time the cook to the nearest minute with a good clock. Don't trust your

Essential Reading for Every Food Canner

The National Canners Association retort survey program has been underway for about one year. Before another canning season gets too far advanced it is appropriate to discuss what has been done and what lies ahead.

For those who are not acquainted with this project, or who may have forgotten its background, let us do a little reviewing.

In the past thirty years the success of commercially canned foods in the United States has given them the reputation of the safest foods on earth. It is true that home canned foods take their yearly toll of lives and some imported foods have been found to be dangerous, but, fortunately, commercially canned foods in this country have been uniformly safe.

* * *

• Only in one state in the Union is the processing of low-acid food products controlled by law. The freedom given the canning industry in the other states by the authorities rests entirely upon the wonderful job of self-regulation that the industry has performed over the years. In the current atmosphere toward food regulation shown by the Federal government, a break in this record could possibly bring governmental control of all food canning operations.

Under such conditions of well being, there is a tendency to overlook the fact that there is no room for failure to sterilize adequately, or to minimize the necessity for adequate retort operation. It is not too surprising, then, to find that in 1958, just two years ago, serious spoilage was encountered by a canner.

The N. C. A. laboratory was called upon to investigate this trouble and found it to be extremely serious. Through the immediate action of the N. C. A., the canner, his broker, and his dealers, the small amount of canned goods that had already been shipped was recalled.

* * *

• After all the canned product had been accounted for, N. C. A. scientists proceeded to determine the cause of the spoilage. They found that it was caused entirely by faulty retort operation. The recommended processing time was being used, but retorts were not being vented.

Following up this evidence of poor practice, the N. C. A. conducted a small survey of canners in the East. It was found that in one way or another over 90% of the canners had deficient equipment or were using improper retorting procedures.

Since this survey indicated that poor practices and equipment hook-ups were prevalent, the National Canners Association quickly called a meeting of its Processing Committee to discuss the situation. (This committee is responsible for the information published in Bulletn 26L on processes for low acid products.) The Committee members, fully cognizant of the serious implications of the problem, proceeded immediately to organize a retort survey committee with representation of the N. C. A., American, Continental, Crown, Heekin and National Can Companies and the Canning Machinery Division of the Food Machinery & Chemical Corporation. This is known as the N. C. A. Committee on Retort Equipment and Operation.

* * *

• The new committee immediately prepared a plan to prevent a recurrence of the 1958 situation through a survey of retort installations in all canneries east of the Rocky Mountains processing low acid food products. Corrective measures were to be recommended when found necessary. As originally planned, the survey would have involved about 1,100 canning plants, but since that time the program has been expanded to include the Western States (except California) and salmon packers in Alaska. The total number of plants to be surveyed under this program now stands at approximately 1,300.

As the first step, a confidential letter was sent to all canners by National Canners Association. The reasons for the survey were explained, and the services of the Committee were offered in checking the retort installations. Included was a form that could be filled out by the canner stating that he would like to have a survey conducted and listing locations of all his plants. This form was to be returned to the N. C. A. The Committee also prepared an article entitled "Canned Food Retorting—Why and How," which appeared in several of the industry magazines.

Over the years a number of articles have been written on the subject of proper retort operation. The subject has been discussed at national and state meetings and has also been thoroughly covered in N. C. A. Bulletin 26L.

* * *

• Despite past industry efforts, some canners apparently do not yet realize how serious a case of spoilage such as that discovered in 1958 could be to them individually and to the industry as a whole. It is amazing to learn that only 25% of the canners replied to the original letter sent out by the N. C. A. and requested that a survey be made of their equipment and operations. It is difficult to understand the lack of response to a program dealing with the very heart and safety of the canning process.

Proceeding with the job at hand, the Committee planned first to check retorts used for processing asparagus, leaf greens, and green and waxed beans—products for which minimum process times are habitually used. The original plans were to complete this program within two years, if at all possible. The Committee is making every effort to do this. To date about 330 surveys have been completed.

What is being done? First it should be pointed out that there is no charge of any kind for this service. It is offered without cost to canners since the organizations supporting the Committee realize how serious a headlined spoilage outbreak could be. If a bad case of spoilage should be encountered it would not only harm the individual packer, but also would be detrimental to the industry as a whole, including the suppliers.

A form has been prepared listing all details of retort installation so that each point can be checked. Observations also are made of the operating procedures. For this reason the canning plant must be in operation at the time the survey is made. The installation and operations are compared with those recommended in the specifications as given in N. C. A. Bulletins 26L and 32L. The forms are filled out and discussed with the canner. At that time, any important details of installation or operation that are not in accord with recommended procedures are pointed out, and suggestions are made for correcting them.

The canner's representative signs the form acknowledging that the survey has been conducted and that the results of the survey have been discussed with him. This does not necessarily mean that he agrees with the suggestions and recommendations of the survey team or that he will make the recommended changes. The Committee is not a police force and cannot require any canner to make changes in his equipment or procedures. The Committee representative can only use persuasion and logic to convince the canner that improper practices should be corrected.

memory. Write down the time at steam-on, temperature up, and when the cook will be finished. Check your addition to make sure you have figured the time out correctly. Good cook room timers are available which will minimize any errors in process timing.

(At one plant checked in the survey it was noted the retort operator had made an error in timing the process. This was pointed out to the manager and the subject was discussed with the retort operator. He was asked, "If the process time was 18 minutes and the retort was at cook temperature at 10 minutes after 1, what time would you shut the retort off?" He thought for a moment and said, "28 after 1." "If the retort was at processing temperature at 2:30, what time would you shut it off?" "At 48 min. after 2, was the answer." "If the retort was at processing temperature at 3:47, what time would you shut it off?' After thinking for a while the operator said, "I don't rightly know, I never was very good at figures." Now, just stop and think that this man was responsible for the retorting operations where an error in processing time could cause spoilage, and, if it were serious, could completely and thoroughly financially ruin the packer.)

Thermometer To Use

To check the temperature accurately a glass stem thermometer must be installed on each retort. Specifications for proper thermometers are given in N. C. A. Bulletins 26L and 32L. The Committee does not at the present time recommend dial thermometers.

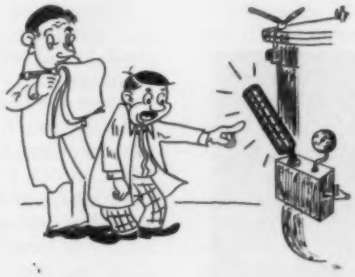
Depend upon the mercury thermometer; if the recorder does not agree, it needs adjusting. The recorder must be adjusted to agree with the thermometer. Recorders are mechanical instruments and can get out of adjustment. Thermometers also may become incorrect but not as easily as a recorder instrument; recorders should be checked at least once a year. A thermometer of known accuracy should be available for checking the retort instruments. There also are companies who will check and repair thermometers and pressure gauges.

Keep Bleeds Open

Leave the small petcocks on the retort wide open during the whole cook. They get rid of air in the steam and circulate steam around the thermometer bulb. These petcocks are called "bleeds."

Unfortunately there is some confusion of terminology in the canning industry and many canners refer to the petcocks on the top of the retort and the thermometer pocket as vents. These are not vents, they are bleeds. Vents are large openings used during come-up to get rid of the air in the retort. The bleeds, the small petcocks, are of no value in venting the retort during the come-up. They are only to get rid of the small amounts of air that come in with the steam and also to create circulation in the thermometer pocket.

Make sure that all compressed air and water valves are closed tightly during cooking. In addition to causing rust, leaky air valves can result in under processing since the bleed petcocks are not of sufficient size to carry off the air that comes in through leaky air valves.



Keep checking the thermometer during the process to make sure that the right temperature is maintained.

When Processing Ends

When the cook time "race" is over, "Bacteria" will be out of the money and "Proper Process" will pay off. If the proper processing time and practices have been used, the bacteria will be killed before the end of the cook, leaving a safe, commercially sterile canned food.

Specific details of installation and operation have purposely not been discussed in this article. This information is given in N. C. A. Bulletins 26L and 32L. Any canner who has questions regarding his particular operations should consult the N. C. A. Laboratory or his can supplier.

Adequate sterilization is the heart of the canning process, and makes commercially canned foods the "Safest on Earth."

Cans Are Safe

This article is printed as an industry service at the request of the National Canners Association. The same article will appear in the pages of other industry magazines during the canning season.

The editors of Canner/Packer agree with the sentiments of the National Canners Association on the fearful damage that could be caused by a single lot of bad canned foods that goes undetected. And there is some evidence that Staph spoilage of canned soaked peas does not always cause swells. These are dangers.

The record of heat sterilized foods is remarkable—almost unbelievably, good. It is worth a great effort to keep it unspoiled.

—The Editors.

References

1. "Factors Contributing to Uniform Heat Distribution in Retorts." Supplement to N.C.A. INFORMATION LETTER No. 934, 1-4, May 15, 1943.
2. I. I. Somers, "How to Vent Steam Retorts to Remove the Air Hazard." *Food Industries 16*, 93-6, 164-6, February 1944.
3. James M. Reed, "Retort Management and Spoilage Control." *The Canner 106*, #10, 13-14, 16, Feb. 28, 1948.
4. James M. Reed, "Retort Management and Spoilage Control—Part 2." *The Canner 106*, #11, 34, 36, 38, March 13, 1948.
5. D. V. Alstrand and R. Royce, "The Practical Value of Careful Retort Operation." N.C.A. INFORMATION LETTER No. 1219 (Convention Issue), 65-7, Jan. 26, 1949.
6. J. H. Bock and Lawrence Newsome, "Cannery Steam Requirements." N.C.A. INFORMATION LETTER No. 1472 (Convention Issue), 66-8, Jan. 30, 1954.
7. D. V. Alstrand and B. W. Blair, "Venting Requirements for Vertical and Horizontal Retorts Using Automatic Loading and Unloading Systems." N.C.A. INFORMATION LETTER No. 1526 (Convention Issue), 67-9, Feb. 28, 1955.
8. *Processes for Low-Acid Canned Foods in Metal Containers*, National Canners Association Bulletin 26-L, Eighth Edition, Dec. 1955.
9. J. H. Bock, *Retort Installation, Equipment and Operating Procedures*. Continental Can Company, Inc., 1957.
10. *An Information Bulletin on Retort Operation*, National Canners Association Bulletin 32-L, June, 1959.

Butterfield Cans Au Gratin Potatoes

By Wm. Ormsby

POTATOES for au gratin pack are washed, then peeled by an FMC continuous steam peeler and abrasive finisher. Larger sizes will then be graded out for the new product.

CAREFUL INSPECTION of the size-graded stock follows, to eliminate undesirable specimens and to sort out others which need to be trimmed or otherwise specially handled.

With Butterfield Foods, Inc., of Muncie, Ind., it is a habit to make money from surplus potatoes.

Although the company was one of the early pioneers to pack french fried potato sticks during the 1930's, it was not until shortly after World War II that the firm began to concentrate heavily on pre-cooked, canned potatoes.

While the company was primarily a tomato-products, bean and pea operation, William Butterfield Sr., president, was persuaded to take advantage of an offer of surplus potatoes for little more than shipping costs and soon found that 75% of his company's income was coming from the venture.

Three years ago Mr. Butterfield decided to experiment again with surplus potatoes and the results may revolutionize the company.

Au Gratin Technique Developed

After three years of working with cooking processes, and in designing and remodeling machinery, the Butterfield firm has come up with a heat-and-eat au gratin potato, complete with cheese sauce, mushrooms and diced sweet red bell peppers. Butterfield is the sole packer of this delicacy and it is canned only under the company label.

Again, surplus potatoes made the innovation possible, and profitable. The pack is mostly the surplus of over-size potatoes the packer previously had no use for.

Ever since the Butterfield tomato canning plant was brought into town from a down-on-the-farm operation and William Butterfield took over his father's operation in 1922, he has never been satisfied with packing seasonal "main-liners" alone.

"It's a waste of money, man-power and machinery to pack a few months out of the year and then let your equipment sit idle," he maintains.

Started with French Fries

The french fried potato stick was the answer for a year-round pack before the war and it wasn't long before the company was packing potatoes 52 weeks out of the year. Butterfield officials say their company is still the only one in the country that packs the product every week.

Although the firm has many complex problems since the days when cans were closed by hand-soldering, the new au gratin line is said to have set a new high in difficulties to be overcome.

When the senior William Butterfield's daughter-in-law, Mrs. William Butterfield Jr., made an off-hand remark about the feasibility of commercially packing au gratin potatoes, during dinner one evening in 1957, Mr. Butterfield saw that he had a possible use for the larger size B's he graded out when preparing for his regular pack of sliced and whole fancy Irish potatoes.

Began Au Gratin Experiment

Together with his partner-sons, William Jr., and George —then 26 and 23-years old respectively—he went to work on the new pack. Scores of problems were encountered from the start—problems in (1) getting the proper recipe, (2) filling, (3) modifying a double seamer for the special size can to be used, and (4) developing a cooking process for the delicate product.

Facing each problem in its order of appearance ("One was as serious as another"), the Butterfields began with the recipe for the sauce. When they finally came up with one they thought palatable, they found they had solved their first problem but had created a more serious one: the formula was far too expensive.

Determined to give the housewife a casserole-type dish for around 39 cents, in a can comparable in volume to a 303, they labored in their company-kitchen for several months and dumped more than 800 trial-and-error con-

coctions before they hit upon a combination of ingredients acceptable both to their tastes and to their pocketbooks.

The sauce fully evolved is made with a chedder cheese base, and contains mushrooms, diced sweet red bell peppers and seasonings.

Raw Materials

In production less than a year, the company is already using about 500 pounds of cheese a day. This item is purchased in 50-lb. containers. Mushroom pieces and stems are bought in 10-lb. cans from Ohio while the potatoes come mostly from Indiana, Ohio, Michigan and Wisconsin. "As long as they are high grade," says George Butterfield, secretary and sales manager, "we're not particular about their variety. We buy B-size on the open market for our other packs and separate out the larger ones for the au gratin line." Sweet peppers are purchased in dehydrated form and come packed in 50-lb. drums.

The cheese sauce is made in batches of 350 gallons. The ingredients are blended together, and then are precookd in conventional steam jacketed kettles before being pumped into a holding tank. The mushrooms and peppers are added separately in the cans.

Prepared in quantities only large enough for immediate use, the sauce is kept under constant agitation at 140° F. until ready for filling.

Potato Preparation

The potatoes are thoroughly washed before passing through a high pressure continuous steam peeler and abrasive finisher, both of which are manufactured by Food Mach. & Chem. Corp. Passing through a 12-employee inspection line they are then gate-controlled for particular lines where they first are subjected to a chip remover for the elimination of buttons and ends.

Next, the potatoes are fed to an Urschel slicer. From this unit they pass without holding to a specially-adjusted FMC hand-pack filler with telescope top. Cans already supplied with mushrooms and sauce, by means of a Girdler Votator filler, pass into the FMC equipment and receive their measured amounts of potatoes.

The sweet red peppers are added last. Officials say there is no particular reason for the filling order—mushrooms, sauce, potatoes and peppers—other than, "That's the way we started out and it is satisfactory."

Cans Pose a Problem

Using a specially designed 404 x 207 can presented filling and closing headaches that took nearly a year to work out. Finally, through altering conventional four-head Angelus Sanitary clinchers and vacuum closing machines the problem was solved.

If they cause such inconveniences, why use the odd-shaped cans? Why not a standard No. 300 or 303 if that size holds the volume desired? George Butterfield answers these questions appropriately enough by explaining he feared the housewife would back off from a 29c potato product shelved next to other potato packs in No. 300 cans selling for 12c or 15c.

"Besides," he adds, "the 404 x 207 lends more of a casserole effect than the taller can."

Cooking in Retorts

After the tins are closed they are carted to four retorts for processing. The product is also cooled in the cookers, which were remodeled by Butterfield. The cooking process, the company claims, gave more trouble than any other one procedure.

William Butterfield Jr., vice-president in charge of production, explains the company has turned down requests from packers in several states and Canada who have asked

BASKETLOAD of cans being carried by overhead conveyor to one of the battery of modified vertical retorts in which the au gratin potatoes are given final cook. The pressure vessels are controlled by Taylor instruments.

BUTTERFIELD TEAM, developer of the new au gratin canned potatoes. William Jr., at left, heads production; William Sr., in center, is president; George, right, handles sales.

to examine the cookers.

"We probably appear to be quite selfish," he says, "but after all, we are a relatively small firm that has only scratched the surface of a 300-mile-radius marketing area and we certainly want a better foot-hold than that before we give out information that has cost us thousands of dollars and three years hard work to obtain."

Unique Market Research

Prior to putting the au gratin potatoes on the market, Butterfield Foods conducted three primary tests to ascertain the potential demand, the proper consistency and flavor, and the right price structure.

This was done in cooperation with Michigan State University, where George Butterfield was then a food distribution and marketing research student. For the class marketing-research project, Butterfield furnished the product, and the school furnished the man-power for a survey team sent out to find if there was a market for the innovation.

While several surveys have since been made, the initial test was of 400 homes in Lansing, Mich., which resulted in figures showing that 82% of the adults interviewed liked the product and would buy it if it were on the market.

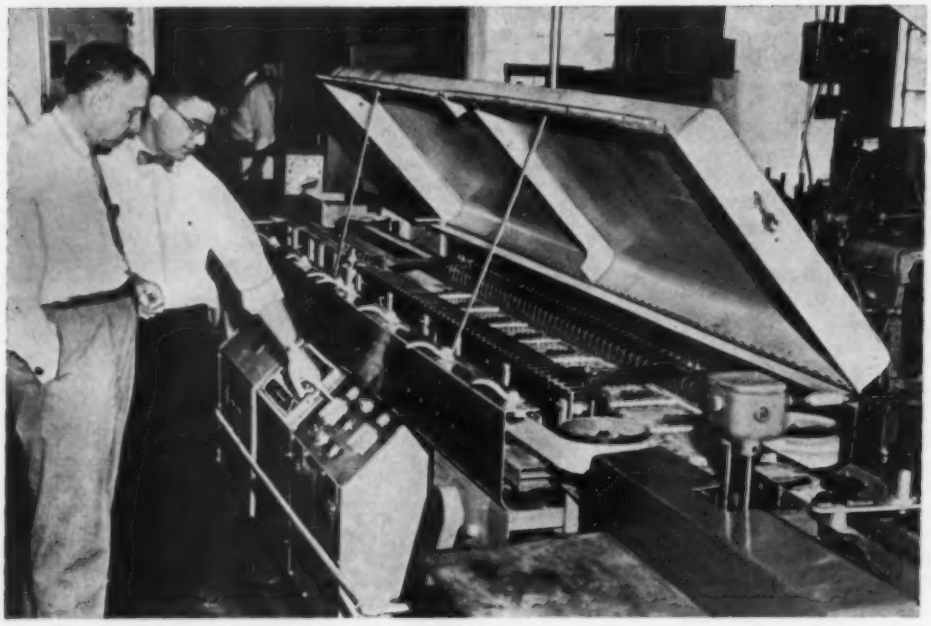
Next, store owners and managers and large food brokers were checked and rechecked to discover what price structure, size of can, type of label, advertising and promotion would be most beneficial. Then in-store demonstrations were carried on, with point-of-purchase displays, to obtain on-the-spot reactions to the new food.

Commercial Production Begins

All the tests assured the company it had an acceptable food innovation and so, in the latter part of 1959, Butterfield au gratin potatoes were introduced in Chicago, Detroit, Cincinnati, Indianapolis, Louisville, Columbus, Cleveland and Dayton.

While the company is enthusiastic about having worked out the early problems of processing and about current acceptance of the product, officials feel there is opportunity for still greater sales volume.

Marketing research from the store level therefore, is currently being done in a large mid-west city in cooperation with the Butterfield advertising agency, Creative Forum Advertising, Muncie. Also involved are two Butterfield brokers—Glueck and Co., Cincinnati, and H. V. Ellis Co., Columbus—and the canner's own sales staff.



DIELECTRIC carton sealer used to seal pie packages is examined by Darwin Overholt, general manager, and Robert Myers, production manager of the Pennsylvania Frosted Foods Co. The Concora unit was installed by Container Corp. of America, and operates at speeds up to 130 per minute.

Veg. Freezer Adds Pie Lines

Penna. Frosted Foods Co. adds volume with branded and private label packs

By PHIL LANCE

Greater mechanization of pie production methods, and a need for diversification, were the two factors which led to the entry of Pennsylvania Frosted Foods Co. into the frozen pie business.

Since 1947 the Southampton (Penna.) firm has been a packer of frozen vegetables, both under its own brand and for private label. In recent seasons, however, farm areas near the packing plant became more and more urbanized, and it became necessary to reach out to ever-greater distances in order to obtain the type and quality of vegetables required.

"We therefore felt that a move into another frozen food line was indicated," says Darwin Overholt. At the same time, we wanted to keep our operations running the year around, rather than just in the vegetable season. So, since frozen pies were becoming increasingly popular, we decided to enter that field. We first set up a single line, but now have two of them with a combined daily capacity of 20,000 pies."

Both vegetable and fruit pies are produced by the Pennsylvania plant. The vegetable types measure five inches in diameter, and are produced principally for private label customers.

Vegetable Types

The operation starts with dispensing of the 5-inch aluminum foil plates into twin rows of cups in a conveyor system. The conveyor passes beneath the depositor, which discharges a flavorful filling made up of peas, carrots, corn, baby lima beans and green snap beans, blended with a cheese sauce. A dough sheeter applies the top crust, crimping and trimming it after the covering has been dropped into place.

The pies are automatically lifted from the conveyor pots and fed into a second conveying system, which moves them single-file to the cartoner. This unit forms the containers for the 8-oz. products, moves the pies horizontally into them, then closes and discharges them. The cold-wax, printed carton is sealed by a cold-resin adhesive which penetrates the wax and sets up a bond between the end and the flaps.

The finished and packaged pies then move into one of a battery of three Amerio plate freezers. After processing, they are packed six or 12 to the case, and are conveyed to the company's refrigerated storage to be held for shipment. Pennsylvania Frosted Foods has 143,000 cu. ft. of refrigerated warehousing, all maintained at 0° F.

Fruit Products

Frozen fruit pies are of several varieties, and of two distinct types, depending on the market to which they will go.

Varieties include apple, cherry, peach and blueberry. All are produced in the 8-oz. size, but the amount of filling is varied so that the net weight is either 22 oz. or 26 oz. The lighter-weight pie, sold to private label buyers or under the firm's "Lady Meyers" brand, is marketed as a conventional unbaked frozen pie, through retail grocery channels. The 26-oz. unit, which is also sold both for private label and under a company brand ("Lady Jean"), goes principally to retail bakery shops, where the pies are baked off and sold in table-ready form to the consumer.

In either instance, manufacturing begins with the feeding of foil plates into a cup conveyor system similar to that used for vegetable pies, except that it is a single-file operation. A sheeter drops the lower crust into place mechanically, a duster lightly coats the surface with flour, and the dough is mechanically pressed into the pan.

Filling and Freezing

A depositor adds the filling, a second sheeter applies the top crust, and the latter is then crimped into place,

trimmed and perforated. The trimmed dough is returned to the first sheeter, where it is utilized in supplying bottom crusts.

Packaging

Unlike the vegetable pies, the fruit varieties go into the freezer before cartoning. They are transferred from the cup-type conveyor to a conventional belt, which delivers them to a station where they are trayed up in sets of 32 for blast freezing. Thirty-five minutes later they are detrayed to another conveyor, which moves them to the packaging department.

Here they are fed into formed cartons, and the latter are closed and sealed. Then the cartons are hand-packed into shipping cases, six or 12 to the case. Finally the cases are closed, glued and palletized for movement to refrigerated storage.

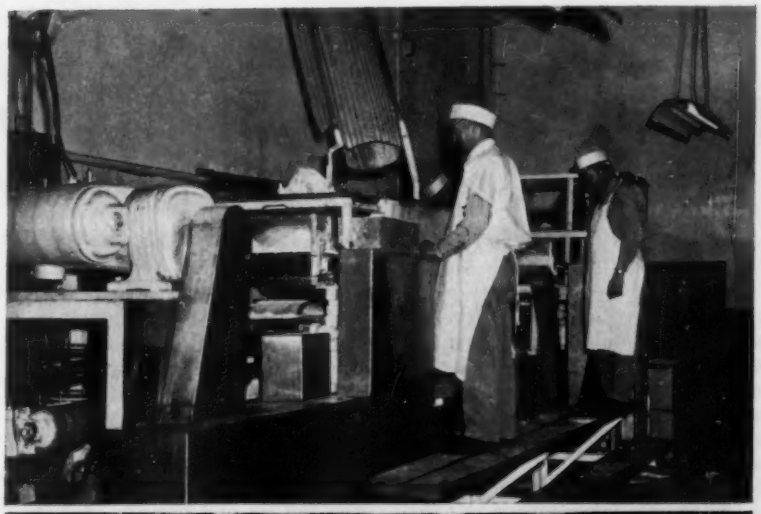
Distribution

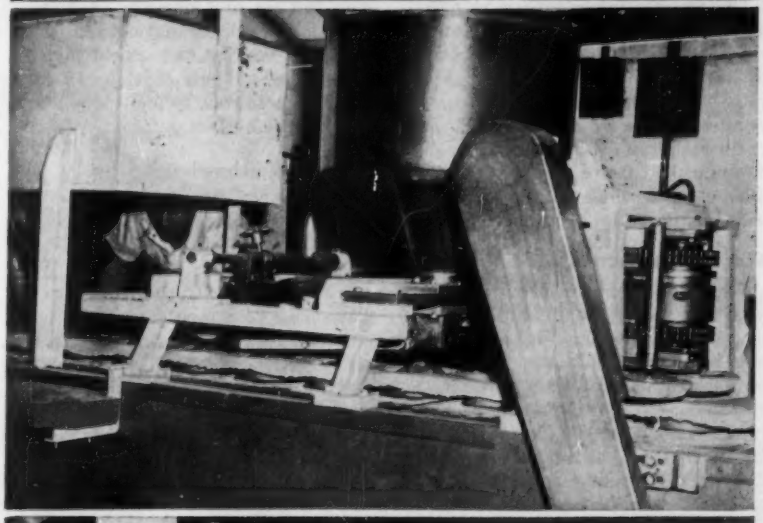
Cartons are of the imprinted window type, and carry a Pennsylvania Dutch theme which ties in with the packer. A fleet of refrigerated trucks is operated by the company to deliver its finished products to retail outlets and to private label customers. Because the frozen pies have a minimum storage life of six months, there is no problem with stales.

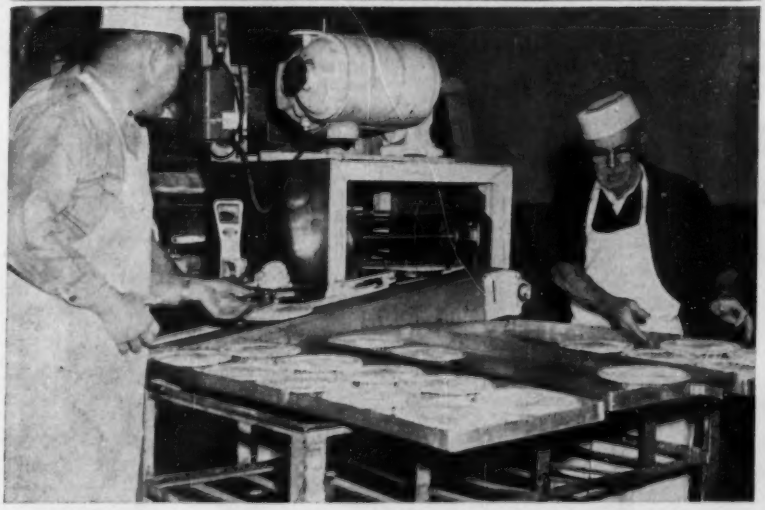
"Our pies are currently being distributed as far north as Boston, as far south as Florida, and as far west as Detroit," reports Darwin Overholt. "Distribution is principally through brokers. Although most of our volume is in the sizes indicated above, we also turn out products to the individual specifications of our trade, since our equipment can readily be adjusted to provide a variety of sizes and weights."

For more information on the equipment and supplies used in the Pennsylvania Frosted Foods plant, please write Canner/Packer, 59 East Monroe St., Chicago 3, Ill. Firms supplying some of the principal items used by the company are:

Pie machines..Mayfair Products, Inc.
Concora dielectric carton sealer .... Container Corp. of America
Cartoning machinery..Rex Packaging Machine Co.
Truck refrigeration equipment..Kold-Hold Co.
Plate freezers .....Amerio Contact Plate Freezers, Inc.
Cold resin adhesive .....National Starch & Chemical Corp.
Aluminum foil pie plates .....Foil Products Co.
Folding cartons.....Lord Baltimore Press
Fibre shipping cases .....Container Corp. of America







THREE OF THE STEPS in producing frozen pies are illustrated in the above pictures... At the top, employees check operation of mechanical dough mixing equipment, before the raw material for the crusts goes to the sheeters... In the center view, the dough has been rolled and laid across the foil pans, and here the right-hand unit presses the crust down into the containers after which the depositor in the center discharges a measured quantity of filling... At bottom, fruit pies have received their top crusts and are being trayed up to go to the blast freezer. The vegetable pies are cartoned first, then put through Amerio plate freezers.

Macadamia Gears for Progress in Hawaii

Castle & Cooke, now marketing 1.5 million lbs. of Pacific island nuts annually, mechanizes for 3 million lb. harvest by 1964

Twelve years ago Castle & Cooke, Inc., seeking an agricultural crop for Hawaii which could be processed and shipped to the U. S. mainland for general distribution, decided to place a bet on a nut which originated in Australia, but which up to that time had not attained much importance commercially.

This was the macadamia, a member of the botanical family Proteaceae which had been named for its discover, Dr. John Macadam of Victoria, Australia. The nut is whitish in color, roundish in shape, and with a flavor which has some of the elements of the chestnut, the filbert, the brazil and the almond—plus some bland but distinct taste characteristics of its own.

Acreage is Increased

When the island factoring firm entered the field in 1948, the macadamia had already been established in Hawaii for nearly 60 years as an ornamental tree, and had been grown commercially for nut production since 1922. There were 800 acres of trees in bearing and 400 more on the way, and the annual harvest was about 700 million lbs. (unshelled basis). Castle & Cooke purchased 1,000 acres of an ancient, jungle-covered lava flow at Keaau, on the big island of Hawaii, and added 2,000 acres in 1951.

Bulldozers and dynamite crews set to work clearing the land of the dense growth of ohia, tangled vines and giant ferns. The rock was then crushed and the fields leveled with rollers. During this same period, seedlings were being grown in sand in a separate nursery, with the aid of University of Hawaii and U. S. Dept. of Agriculture scientists. And the first mechanical advance was made—a digger capable of boring into the loose rock to make a 1½-foot hole in which to set out the baby trees.

New Techniques Develop

Since then, the work has gone on apace in the orchards. The seedlings have been set out, scions of several good-yielding varieties have been grafted to the rootstock, fertilizer and herbicides have been used generously to encourage tree growth and yet prevent developments of weeds. Also, since the nuts are not ripe until they drop, the rough lava ground is being coated in some areas with volcanic cinders and ash, to provide a smooth surface for harvesting. Mechanical harvesters also are being tested.

Processing, also, has received much attention since 1948. As accompanying pictures show equipment has been developed for removing the outer husk, for dehydrating, for size-grading, for cracking the shell, for roasting in oil, and for packaging. Even quality-grading has been mechanized with flotation units, leaving removal of the culls as the only essentially hand operation at Keaau Orchard.

Production Gains

As a result, production of macadamias is increasing in Hawaii, costs are being controlled, and the market is beginning to develop. Total commercial production is above two million lbs. a year now, and Castle & Cooke hopes to ship three million lbs. in 1964.

Byproducts also are being developed. Husks were first used as mulch, but now are being pulverized in a Reitz disintegrater, then mixed with such materials as molasses and pineapple bran, and used as cattle feed. Dow and other chemical firms reportedly are studying the value of the shells as a filler for plastics.

The biggest job of all, perhaps, is that of introducing macadamias more widely in the U. S. mainland. This, also, Castle & Cooke hopes to do successfully, marketing its product both for eating out of hand and for use in ice cream, bakery goods, etc.

1 Macadamias ripen and drop from the trees from June to October in Hawaii. Trees are 25 feet apart (70 per acre), but eventually will be thinned to half that number. Because they are planted in a rough former lava flow, harvesting is still mainly by hand.

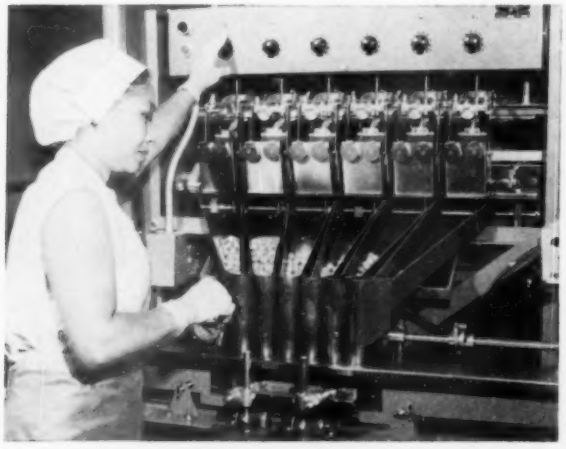
2 Keaau Orchard's fields are now being covered with volcanic ash, to provide a smooth surface which will permit use of mechanical harvesters like that shown here. Trucks and trailers transport nuts to the plant, built in 1956, enlarged in 1958.

3 Husks are removed by machine consisting of auto tires, which rotate and push the hulls against a metal plate (background). Inshell nuts are then inspected and culled, after which they go to dehydration equipment and then to an automatic scale.

4 Macadamias are sorted mechanically into five size-grades, then shelled in these steel anvil-hammer units. The kernels then go through flotation machines, in which sugar-heavy rejects sink and quality nuts float. Water is spun off in centrifugals.

5 Nuts are roasted in coconut oil for 12 minutes at 270° F. Here a 300-lb. batch is cooling and draining after the cook. Excess oil will then be removed by centrifuging. Macadamias are 75% oil, richer than brazils, cashews, pistachios.

6 Quality sorting still remains a hand-and-eye job, as it does with most foods. Top-quality kernels are packaged for retail sale, seconds are ground for ice cream, candies, bakery goods. Macadamia ice cream has long been a popular seller in Hawaii.



7 NUTS ARE WEIGHED and then deposited into glass jars by means of this Parsons automatic scale. The machine handles containers at 60 per minute, measures out 3½, 7 or 12 oz. After filling, the jars go to a vacuum chamber and then to closing station.

8 Vacuum-sealed jars by Owens-Illinois Glass Co. receive labels with the aid of a semi-automatic labeler, then are banded with a cellulose seal which also holds in place a booklet suggesting ways to serve and enjoy macadamias.

Only via this Vapor-Vacuum Cap....

For their sweeping adoption of the ¼-turn Vapor-Vacuum Twist-Off, food packers have an exceedingly powerful reason. *They use this cap with such complete assurance because it gives them a combination of advantages which can't be secured in any other way.*

This is what the food packer gets when he uses the original ¼-turn Twist-Off:

1st—the top-level convenience—superb ease of opening (with remarkably constant torque) and effortless, air-tight re-seal... a combination which has given the Twist-Off unprecedented consumer acceptance.

2nd—the true Vapor-Vacuum protection and production efficiency—two major elements in successful glass packaging for many years.

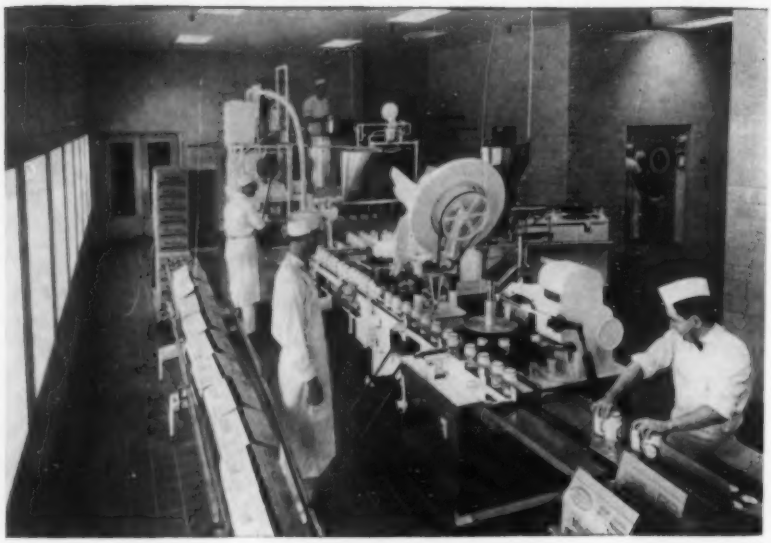
3rd—the White Cap cooperation—through the unique field service and engineering aid which helps all Vapor-Vacuum users to achieve maximum production and economy on their packaging lines.

Along with all this, finally, is the ultimate advantage of being backed by White Cap research, which has made so many major contributions to glass-pack progress—and can be counted on for many more.

Result—hundreds of food packers have been able to "go Twist-Off" with unqualified assurance of successful packaging.

VAPOR-VACUUM ¼-turn "Twist-Off" Cap

NEW "Twist-Off" CAP
CLOSE
OPEN



THE BISHOP FAMILY has been operating a successful salad-dressing manufacturing business since 1927. Just recently the Des Moines firm moved into a new plant, a section of whose production facilities is shown here. Mrs. Clark's Foods has a secret weapon contributing to its progress, however, as told in the headline and story on these two pages.

Iowa Glassed Food Packer Turns Distributor

Mrs. Clark's Foods, Inc., keeps fleet of trucks busy handling its own output of salad dressings, plus products of other firms

By JOHN MCLAREN JR.

There is a growing trend among food specialty manufacturers to act as distributors in the areas surrounding their plants. As distributors, they handle not only their own manufactured products, but also other lines that are sold through grocery stores. Manufacturers of salad dressing, pickles, potato chips and cheese are typical of the types of packers and processors that have gone into distribution.

The advantage in terms of reduced sale and distribution costs are obvious. A single salesman with a truck can handle both sales and on-the-spot deliveries for as many as 12 or 15 different lines in addition to his own.

Generally speaking, one salesman and truck can give top notch service to all the grocery outlets in an area with a population of approximately 80,000 to 100,000. In densely populated areas, the figure would be larger and, conversely, in sparsely populated regions the figure would be somewhat smaller.

A typical successful operation of this kind is Mrs. Clark's Foods, Inc., Des Moines, Iowa, packer of salad dressing.

Mrs. Clark's salad dressings are sold through over 40 distributors in eleven midwest states. Within a radius of about 100 miles from Des Moines, the company handles its own distribution along with more than a dozen nationally known sepcialty and food lines put up by other packers.

THE NEW PLANT of Mrs. Clark's Foods, Inc., in Des Moines, Iowa. This serves not only as production center for the company, but also as a distribution warehouse for a number of other firms.

THIS WAREHOUSE contains more than the mayonnaise, salad dressings and sauces made in the Mrs. Clark's tiled production department. Nearly 25% of the area, including sections of two walk-in refrigerated units, is taken up with the food products of more than a dozen other packers of such items as pickles, potato chips, cheeses.

Eleven trucks form the fleet which handles Mrs. Clark's distribution in the home territory. All are equipped with refrigerated compartments for transporting perishable foods. Each truck has a Kold Hold unit for maintaining a constant temperature throughout the day, being recharged each night. This equipment was added to the fleet solely for distributed lines, as the dressings require no refrigeration. With the refrigerated compartment, compact shelving and dividers, each truck is literally a miniature warehouse.

Nine route salesmen service their accounts as they sell—checking stocks, delivering merchandise and setting up displayes on each call. They are under the direction of Willard Bishop, vice president and sales manager of Mrs. Clark's.

Warehousing, handling and inventory control of distributed lines is relatively simple. Less than 25% of Mrs. Clark's warehouse space is required for the lines the company handles as distributor. Two walk-in coolers provide over 3,000 cubic feet of refrigerated space for perishable foods distributed by the firm, and also for ingredients used in the manufacture of salad dressings.

Distributed lines are ordered from the various manufacturers at weekly intervals, though some goods are supplied on a less frequent basis, depending on volume, turn-over and sales.

Very close inventory control must be maintained on lines that are largely seasonal in character, since returns are costly and it is impractical to carry over merchandise from one year to another.

According to Mrs. Clark's management, the distributing business has played an important part in the success of the operation. "Distributing is a natural potential course of action for any food manufacturer," officials say. "We have handled lines of other packers for over 30 years. The practice has helped us to build a strong, efficient sales program by spreading sales and distribution costs over several lines of products. It would not be practical or economical to operate a fleet of trucks just to distribute one specialty line as limited as ours."

One of the greatest benefits for a manufacturer who relies on a manufacturer-distributor operation such as Mrs. Clark's is the tremendous saturation his product can achieve. In the "home" market of central Iowa, Mrs. Clark's is carried by nearly 100% of the retail grocers. The distributed lines share this acceptance wherever the home product goes, and often are stocked through the efforts of the salesmen at the same time he sells and stocks the Mrs. Clark's products.

ELEVEN TRUCKS, all equipped with Kold-Hold refrigeration, make daily deliveries to retailers and institutional users of salad dressings, pickles, sauces, condiments and other food specialties.

UNCANNY!

The ability a Fuller Man demonstrates in solving your adhesive problems

H. B. Fuller Co.

INDUSTRIAL ADHESIVES

St. Paul Minnesota

ST. PAUL, MINN. • ATLANTA, GA. • BUFFALO, N. Y. • CHICAGO, ILL. CINCINNATI, OHIO • DALLAS, TEX. • KANSAS CITY, MO. • LINDEN, N. J. • LOS ANGELES, CALIF. • MEMPHIS, TENN. • PORTLAND, ORE. • SO. SAN FRANCISCO, CALIF. TAMPA, FLA.

Also WINNIPEG, CANADA

FULLER ADHESIVES INT'L. NASSAU, BAHAMAS

CROPS/PACKS/MARKETS/PRICES

DRY FOODS

U.S. Milk and Petfood Packs Register Gains

Fruits: The preliminary outlook for the 1960 pack of dried fruits in California is for a normal production of apples, a reduction in apricots, a larger fig outturn, peach and pear packs about on a par with 1959, a 4% smaller prune pack, and about the same reduction in the pack of raisins.

Vegetables: California, with an acreage cut of 19% in harvested acreage, is producing a somewhat smaller pack of dried peppers than the 8,480 tons reported for 1959. . . U. S. packs of dehydrated potato products are expected to be larger in 1960 than in 1959, reflecting continued demand by retail and institutional consumers, plus early crop indications (winter, early and late spring, early summer) of a harvest of nearly 4.8 billion lbs., against 4.5 billions in the like periods of 1959.

Milk: In the first five months of 1960, U. S. production of dry milk products is reported by USDA as follows, in lbs.: Whole milk, 49 millions, up 21% over the same period of 1959; spray nonfat, 807 millions, up 7%; roller nonfat, 71 millions, up 13%; buttermilk, 38 millions, up 13%.

Petfood: The 1958 U. S. pack of biscuit, pellet and meal dry dog and cat food is reported by U. S. Bureau of the Census as 1,558,200,000 lbs. This compares with 947,678,000 lbs. in 1954, next most recent census year.

Sugar: World production of centrifugal cane and beet sugar is estimated a 54,976,000 short tons in 1959-60, only slightly below the 55,574,000 tons of 1958-59. The industry is closely watching U. S. - Cuba developments, which so far have resulted in cutting off U. S. importation of more than 800,000 tons of Cuban sugar after the Castro government expropriated property belonging to U. S. citizens. The effect is not expected to be of major consequence this season, but could become much more significant in 1960-61 if that year's Cuban shipments to the United States also are affected.

Beans: Thirty-six nations important in dry bean exports or imports or both —excluding communist - dominated areas—increased exports of dry beans from 4,312,000 100-lb. bags in 1958 to 6,182,000 bags in 1959, USDA states. Reported imports also rose, from 7,094,000 bags in 1958 to 8,176,000 bags in 1959.

Coffee: Sharp curtailment in Brazil's coffee harvest is expected to reduce the world exportable production of green coffee beans from 65,110,000 bags (132.276 lbs.) in 1959-60 to 58,094,000 bags in 1960-61. Most of the 30 other nations included in the USDA compilation (which excludes communist-dominated areas) are expected to have crops equal to or above 1959-60.

Eggs: U. S. dried egg ouput is running behind 1959 this year. In the first five months, packers used only 81,485,000 lbs. of liquid egg for drying in 1960, against 110,713,000 lbs. in 1959.

Nuts: Italy's almond crop in 1960 is sharply curtailed—only 20,000 short tons against 52,000 in 1959, according to preliminary estimates. Iran's harvest also is running smaller—8,000 tons against 10,000 the year before. . . Production of Brazil nuts (in Brazil, plus imports from Bolivia) in 1960 is estimated at 31,000 tons, bigger than the 1959 pack of 24,000 tons, but below what had been expected earlier. . . In the United States, consumption of shelled peanuts in the first 10 months of the season beginning last August 1 has added up to 618,573,000 lbs. of edible grades and 171,742,000 lbs. of oil stock. Edible grade usage is up from 600,191,000 lbs. in 1958-59, but oil, cake and meal have dropped off from 194,074,000 in the same period of the earlier season.

CANNED FOODS

Fruit and Vegetable Packs at Normal Levels in 1960

Vegetables: Total U. S. canned vegetable production in 1960 will be similar to that of 1959, preliminary indications suggest, although individual varieties will show changes. Planted acreage of nine principal processing crops (including land for freezing, drying and glass-packing) is reported by USDA as 1,535,670 acres in 1960, contrasted with 1,528,480 acres in 1959. Production of peas for canning and freezing is estimated at 441,980 tons this year, against 473,740 last, the result of miserable weather conditions which more than cancelled out increases in processing acreage.

Petfoods: U. S. packs of canned dog and cat food are reported by U. S.

GAYLORD SETS THE STAGE
FOR SMOOTH AUTOMATIC PACKAGING

Plan a happy ending for your automatic packaging.
Buy containers that fit your machinery precisely,
flow through your lines without a stumble or a fluff.

Gaylord produces such containers, with
letter-perfect precision, in any number you need.
Get the whole story from your Gaylord Man.
He'll turn in an award-winning performance.

CROWN ZELLERBACH CORPORATION
GAYLORD CONTAINER DIVISION

IN CANADA • CROWN ZELLERBACH
CANADA, LTD. VANCOUVER, B. C.

HEADQUARTERS ST. LOUIS
PLANTS COAST TO COAST

Refrigerated Storage to
IMPROVE YOUR FRUIT QUALITY
and help you get premium prices

To improve your returns from holding apples, pears, peaches and other fruit adopt the Niagara "No-Frost" method of refrigeration. You will bring your fruit core temperature down faster when you bring in your crop. You will get quicker reduction to uniform temperature and be sure of holding the same high quality at all levels of palleted storage in every corner of your building. You will have the lowest operating and maintenance costs in the business.

Example: 2 Niagara Spray Coolers pre-cool 3500 boxes of pears per 24 hrs. in the 40,000 box storage building shown.

Use Niagara Spray Coolers also in the controlled atmosphere storage of apples in sealed space to improve appearance, flavor and market value. *For complete information write to*

NIAGARA BLOWER COMPANY
Dept. C-8 , 405 Lexington Ave., New York 17, N. Y.
District Engineers in Principal Cities

tough
greasy, hot conditions slow down your production? Not with PUR-O-TEX conveyor belts!

Food processors find Ton-Tex Pur-O-Tex conveyor belting proves best for conveying foods under conditions that present some real problems. Pur-O-Tex is a white, non-toxic belting built specially to convey foods of all kinds. It is made of plies of selected duck welded with special compounds and treated to resist heat, oil, grease, water and mild abrasion. Pur-O-Tex belting won't impart taste or odor to the products carried. It is permanently pliable and can be vulcanized endless. Easy to wash and keep clean — an excellent "inspection" belt. Let our engineers help you select a trouble-free belt for your conveying jobs. *Write for folder today.*

TON-TEX CORPORATION, GRAND RAPIDS 2, MICH.
31 COLUMBUS AVENUE, ENGLEWOOD, NEW JERSEY
1180 AUZERAIS AVENUE, SAN JOSE 26, CALIFORNIA
TON-TEX CONVEYOR AND TRANSMISSION **BELTING**
TON TEX

Bureau of the Census as follows, in the two most recent census years, in thousands of lbs.:

Type	1954	1958
100% horsemat	*	68,035
Other types	*	1,607,634
Totals	1,459,847	1,675,669

*Not segregated.

Milk: U. S. production of canned evaporated milk in 1960 continues to run behind 1959. In the first five months of this year, output has been 906 million lbs., down 4%. Canned condensed milk is up 14%, the five-month pack being 29 million lbs.

Seafoods: California's canned mackerel pack is running sharply ahead of 1959 figures, as catches run almost 3-to-1 over the like period of last year.

Poultry: U. S. usage of poultry for canning and other processed foods is up sharply in 1960. In the first four months of this year, quantities used were 110 million lbs. ready-to-cook weight), against 90 millions in 1959.

Florida Citrus: Florida packs of canned shelf-pack citrus in the first nine months of the 1959-60 season (through June) compared with the same three quarters of 1958-59 as follows, in thousands of cases (24/2s), according to Fla. Canners Assn.:

Item	1958-59	1959-60
Grapefruit juice	10,060	9,305
Orange juice	13,256	15,117
Combination juice	4,212	4,377
Tangerine juice	772	229
Grapefruit sections	4,572	4,003
Citrus salad	591*	499
Orange segments	*	25

*Combined.

Fruits: Early reports on U. S. fruit crops suggest a 1960 canned pack no more than that of 1959, some items being up, others down. Preliminary harvests are reported by the various crop-reporting services as follows, in thousands of short tons:

Item	1959	1960
Apricots	230	223
Cherries, red	137	115
Cherries, sweet	78	83
Peaches, cling	609	690*
Peaches, free	1,175	1,150
Pears, Pac. Coast Bartletts	491	460

*Before green drop program.

GLASSED FOODS
Early Pack Running 3% Ahead of 1959

U. S. Total Pack: Shipments of glass containers to food firms by U. S. manfacturers for the first five months of 1960 were 3% ahead of the like period of 1959, USDC reports. In terms of thousands of gross, narrow-neck food container movement has been 6,353 this year and 5,958 last season, while deliveries of wide-mouth jars and tum-

blers have totaled 17,190 for the five months of 1960 against 16,991 a year earlier.

Honey: New crop was being extracted in most sections of the U. S. in July. While the weather so far this year has been too wet in some areas and not damp enough in others, the general outlook continues to be favorable, and 1960 production is expected to be on a par with 1959.

Pickles: U. S. acreage planted to cucumbers for pickles in 1960 is reported by USDA as about 102 thousand acres, down from nearly 110 thousand in 1959. It is also 4% lower than intended acreage reported earlier by the nation's packers. While yield per acre could run better than that of 1959, present indications point to a glassed pickle output slightly smaller than last season's. Sharpest acreage cut is in Texas.

Salad Dressing: The U. S. salad dressing industry in 1959 continued its long-term trend of producing more of its products than it had done the year before, according to USDC. Not since 1945 has here been a season in which a decline in output has been recorded. Preliminary figures on the 1959 and 1958 packs are as follows, in thousands of gallons (000 omitted):

Item	1958	1959
Salad Dressing	54,873	57,103
Mayonnaise	50,717	54,578
Sandwich spread	6,981	6,920
French dressing	8,561	9,330
Other, semisolid	2,519	2,975
Other, liquid	2,499	3,471
TOTALS	126,150	134,377

Peanut Butter: From August 1 to June 1, the current season has been 311,786,000 lbs. of shelled peanuts converted to butter, compared with 308,426,000 lbs. in 1958-59. This suggests a total utilization for the current year slightly above the 362 million lbs. reported for the 12 months of 1958-59.

FROZEN FOODS

Lighter Packs Reported in Several Fields

Seafoods: U. S. frozen fish production in the first five months of 1960 has been 91,564,000 lbs., U. S. Fish & Wildlife Service reports. This is down slightly from the 93,468,000 lbs. of the same period in 1959. Fish freezing for bait and animal food has been running particularly heavy of late, so production for human consumption is down to a proportionately greater degree.

Strawberries: With a national strawberry harvest (for all purposes) estimaed at less than 443 million lbs. in 1960, against more than 476 millions in 1959, frozen production is running behind last year. In important states, deliveries to processors (freezers only in California) have run as follows through June, thousands of lbs:

State	1959	1960
Washington	28,780	23,582
Oregon	77,482	60,648
California	30,437	26,827
Michigan	9,854	9,110
TOTALS	146,553	120,167

Red Cherries: The U. S. red cherry crop is estimated at 115,160 tons in 1960, compared with 137,030 in 1959. East Coast, Midwest and Northwest areas all report smaller harvests. Preliminary indications are that the reduced tonnage will be more heavily reflected in the canned pack than in the frozen one.

Florida Citrus: The Florida frozen orange concentrate pack is running only slightly below the last season, but other Florida items are well behind. Fla. Canners Assn. reports. Figures to late June (from the seasonal beginning on Nov. 1) are as follows, in thousands of gallons:

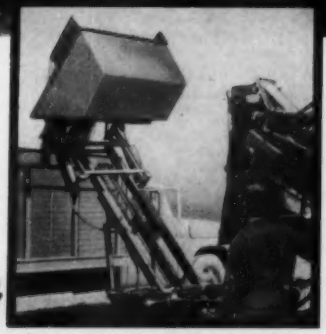
Item	1958-59	1959-60
Froz. orange conc.	79,773	78,164
Froz. grapefruit conc.	4,910	1,611
Froz. blend conc.	675	271
Froz. tangerine conc.	1,142	320
Frozen limeade conc.	*	296

*Not available.

Combine Peas and Lima Beans PROFITABLY...

with the Scott Improved Pea and Bean Combine

Threshes tender peas and limas thoroughly, cleanly with only one operator. The high capacity and drastic labor reduction enables this Combine to pay for itself in a short time from the reduction of labor alone. The same acreage can be handled faster with less equipment. This new Combine does not cost — it pays!



The new Scott Hydraulic, Bulk Handling Dump Hopper completes the dumping cycle in less than 2 minutes. The large capacity (1400 to 1800 lbs. peas) eliminates the need for trucks entering the field in most cases.

Larger hoppers are available for sweet corn and other products.

THE Scott Viner COMPANY

1224 KINNEAR ROAD, COLUMBUS 8, OHIO

Processed Food Prices

CANNED FOOD PRICES

F.O.B. packing plant, per dozen containers, as of the first of the month indicated. Data compiled from latest available price lists of individual packers. Districts as follows:

ATLANTIC (Atl.)—Me., N. H., Vt., Mass., Conn., N. Y., N. J., Penna., Md., Del., Va.
SOUTH (S.)—N. C., S. C., Ga., Fla., Ky., Tenn., Ala., Miss., Mo., Ark., Ia., Okla., Tex., P. R.
MIDWEST (M.)—Ohio, Ind., Ill., Mich., Wis., Minn., Iowa, S. D., Neb., Kans.
WEST (W.) — Alaska, Ariz., Calif., Colo., Hawaii, Ida., Mont., N. M., Ore., Utah, Wash., Wyo.

Prices are in dollars and cents, with the dollar omitted when the range covers more than one dollar. When the range is 2 dollars or more, the prices are averaged.

$1.75 to $1.95 is written 1.75-95
$1.75 to $2.95 is written .75-2.95
$1.75 to $3.95 is averaged 2.95

CANNED FRUITS

	June 1, 1960 —303—	—10—	July 1, 1960 —303—	—10—
Apples, sliced				
Atl.		8.00-25		8.00-25
Wes.		9.50		9.50
Applesauce, fancy				
Atl.	1.40	8.50		7.00
Wes.	1.45	8.25		8.25
Apricots, ch. hvls.				
Wes.	2.05	12.10	2.05	12.10
Cherries—Red Tart Pitted, water				
Atl.		12.50		12.50
Mid.	1.60-75	.50-11.50	1.85	12.50-75
Wes.	2.07½	12.00	2.07½	12.00
Cherries—Sweet Unpitted, Wes. ch.				
dark	3.15	18.35	3.42½	20.00
light	3.35	19.45	3.42-67½	20.90
Citrus—Grapefruit (303 & 46 oz.) fcy. swtnd.				
So.	1.87	9.50	1.87	9.50
Citrus-Salad (303 & 46 oz.) fcy. swtnd.				
So.	2.80		2.80	
Cranberry Sauce (No. 300) fcy. puree				
Atl.	1.70-75		1.70-75	
Figs, Choice				
Wes.	2.35	13.05	2.35	13.05
Fruit Cocktail, choice				
Wes.	2.20	11.85	2.20	11.85
Fruits For Salads, fcy.				
Wes.	3.05-10	.75-17.00	3.05-10	.75-17.00
Olives, Ripe (No. 1 Tall) Wes.				
lg.	2.90	18.10	2.90	18.10
ex. lg.	3.00	18.80	3.00	18.80
Peaches—Clingstone, Wes. ch.				
slice	1.75	9.50	1.75	9.50
hlvs.	1.75	9.10-50	1.75	9.10-50
Peaches—Freestone, ch. hlvs. Elb.				
Mid.	2.65	11.25	2.65	11.25
Wes.	1.90	10.35	1.90	10.35
Pears, ch. hlv. Bart.				
Mid.	1.90	10.50	2.05	10.50
Wes.	2.05	11.50	2.15	11.50
Pineapple (No. 2) Wes. fcy.				
Slice	3.75	15.50	3.75	15.50
Chnk.	3.42	15.70	3.42	15.70
Crsh.	2.90	11.40	2.90	11.40
Plums—Purple, ch.				
Wes.	1.65-75	.50-8.00	1.85	8.75

CANNED VEGETABLES

	June 1, 1960 —303—	—10—	July 1, 1960 —303—	—10—
Asparagus (No. 300) fcy. lg. green				
Atl.	3.40	12.25	3.40	12.25
Mid.	2.10	12.75	2.10	12.75
Wes.	3.60		3.60	
Asparagus, White				
Wes.	3.10		3.10	
Beans, Green Lima, fcy. small				
Atl.	12.15-25	12.35	2.15-25	12.50
Mid.	2.00-10	12.00-25	2.00-10	12.00-25
Beans, Green Snap, fcy. cut (Wes. B. L.)				
Atl.	1.45-80	8.50	1.45	8.50-75
So.	1.45	8.50	1.40	8.00
Mid.	1.55	9.50	1.55	9.50
Wes.	1.85-87	9.75	1.85-87	9.75
Beans, Wax Snap, fcy., cut.				
Atl.	.80-2.05	11.00	.80-2.05	9.00
Mid.	1.55-65	9.25	1.55-65	9.25
Beets, fcy. sliced				
Atl.	1.07½	4.75	1.07-32½	4.75
Mid.	1.07-15	5.00-50	1.07-15	5.00-50
Wes.	1.35	6.10	1.35	6.10
Carrots, fcy. diced				
Atl.	1.20	6.25	1.25	6.75
Mid.	1.12-15	6.25	1.12-15	6.25
Corn-Golden, Cream & Kernel, fcy.				
Atl.	1.30-50	.50-9.00	1.35-50	.50-9.00
Mid.	1.40-50	8.00-75	1.10	8.00
Wes.	1.55-60	8.50	1.55-60	8.50
Corn-White, Cream & Kernel, fcy.				
Atl.	1.40	8.50	1.40	8.50
Peas, Green (No. 2 sieve), fcy. early				
Atl.	2.05	11.75	1.75	11.75
Mid.	2.00	12.25	2.00	12.25
Peas, Green (No. 2 sieve), fcy. sweet				
Atl.	1.75	8.50	1.45-60	.50-9.00
Mid.	2.00	12.25	2.05	11.00
Wes.	1.60-95	8.25	1.60-95	8.25
Peas, Blackeye (No. 300) fcy.				
So.	1.25	8.00	1.25	7.50
Pimientos (4-oz.) whole, So.				
tin	1.65		1.65	
glass	1.85		1.85	
Potatoes, Sweet (No. 3-Vac.), fcy. syrup				
Atl.	1.65	9.00	1.65	9.50
So.	1.30	7.50	1.30	7.50
Potatoes, Sweet (No. 3 Vac.) fcy. vacuum				
Atl.	2.10		2.10	
Potatoes, White, fcy				
Atl.	1.05		1.10	
So.	1.15	5.25	1.25	4.50
Pumpkin (No. 2½), fcy.				
Atl.	1.50	5.50	1.50	5.50
Mid.	1.57½	5.50	1.57½	5.50
Wes.	1.50	5.00	1.50	5.00
Spinach, fcy.				
Atl.	1.55	7.00	1.70	7.00
So.	1.20	5.75	1.20	5.00-75
Wes.	1.17½	4.85	1.17½	4.85
Other Green, So. fcy.				
trnp.	.97½	4.50	.95	.80-4.40
mstd.	.97½	4.50	.95	4.40
poke	1.35		1.35	
Sauerkraut, fcy.				
Atl.	1.45	7.00	1.45	7.00
Mid.	1.42	6.70	1.42	6.70
Wes.	1.35		1.35	
Tomatoes, Ex. Std. (Wes. fcy.)				
Atl.	1.50-60	6.00-25	1.50-60	6.00-25
So.	1.40-45	7.25	1.40-45	7.25
Mid.	1.55-65	8.25-50	1.55-65	8.25-50
Wes.	1.65	9.50	1.65	9.50
Tomato Catsup—Tin, fcy.				
Atl.		11.00		11.00
Mid.		10.25-50		10.25-50
Wes.		8.75		8.75
Tomato Paste (6-oz.) 26%				
Atl.		10.85		10.85
Mid.		11.85		11.85
Wes.		11.85		11.85
Tomato Puree (No. 2½) fcy. 1.045 (Wes. 106)				
Atl.		7.00	2.20	7.00
Mid.		6.50		6.50
Wes.		7.50		7.50
Tomato Sauce (8-oz.) fcy.				
Atl.		11.00		11.00
Wes.	.80	8.50	.80	8.50
Mixed Vegetables, fcy. Peas-Carrots				
Atl.	1.65		1.65	9.00
Mid.	1.50-65	9.75	1.50-65	9.75
Wes.	1.62½	9.00	1.62½	9.00
Mixed Vegetables, Succotash, fcy.				
Atl.	1.85-95		1.85-95	10.00
Mid.	1.55	9.00	1.55	9.00
Mixed Vegetables, other				
Atl.	1.55		1.55	
Wes.	1.75	9.75	1.75	9.75

FROZEN VEGETABLES

(Retail per doz.)
(Instl. per lb.)
(Grade A)

	June 1, 1960 —Retail—	—Inst.—	July 1, 1960 —303—	—10—
Asparagus—Jumbo, 10-oz., 40-oz.				
Atl.	4.50	.50	4.50	.50
Wes.	3.45	.47	3.45	.47
Beans, Fdhk, Lima—10-oz., 40-oz.				
Atl.	2.30-59	.26	2.59	.26
Wes.	.70-2.05	.25	1.70	.25
Beans, Baby Lima—10-oz., 40-oz.				
Atl.	2.40-59	.27	2.59	.27
Wes.	.95-2.05	.25	.95-2.05	.25
Beans, Green Snap—Reg. 9-oz., 40-oz.				
Atl.	2.05	.20	2.05	
Wes.	1.65-70	.21	1.65-70	.21
Beans, Green Snap—Fr. Cut. 9-oz., 40-oz.				
Atl.	2.05		2.05	
Wes.	1.65-70	.21	1.65-70	.21
Beans, Italian —9-oz., 40-oz.				
Atl.	2.35		2.35	
Wes.	1.75	.20½	1.75	.20½
Broccoli—10-oz., 32-oz., Spears				
Atl.	.79-2.33	.19-.22	2.33	.21
Wes.	1.25-85	.18	1.25-85	.18½
Brussels Sprouts—10-oz., 32-oz.				
Wes.	2.40	.26	2.40	.26
Carrots—50#				
Atl.		.07		.07
Wes.		.05½-.06		.05½
Cauliflower—10-oz., 32-oz.				
Atl.	2.35-75	.15	2.55	.15
Wes.	1.80-85	.19	1.80-85	.19
Corn, Cut—10-oz., 40-oz.				
Atl.	1.99	.23	1.99	.23
Wes.	1.60-70	.24	1.60-70	.24
Corn, Cob—2-ear, 12-ear				
Mid.	2.60		2.60	
Wes.	1.70-85		1.70-85	
Kale—10-oz., 32-oz.				
Atl.	1.63	.13	1.63	.13
Mixed Vegetables—10-oz., 40-oz.				
Atl.	.80-2.05	.21	2.05	.21
Mid.	1.55	.21	1.55	.21
Wes.	1.60-65	.19	1.60-65	.19
Okra—10-oz., 40-oz .				
Atl.	2.25	.22	2.25	.22
Peas, Blackeye—10-oz.				
Wes.	2.25		2.25	
Peas, Green—10-oz., 40-oz.				
Atl.	1.35-79	.17	1.79	.17
Mid.	1.35	.16	1.45	.18
Wes.	1.40-45	.14-.15	1.40-45	.15
Peas & Carrots—10-oz., 40-oz.				
Mid.	1.17	.16	1.17	.16
Wes.	1.25-30	.14	1.25-30	.14
Potatoes—9-oz., 40-oz. Atl.				
F. F.	1.60-79	.19	1.79-84	.19
whip	1.52		1.52	
puffs	1.63		1.63	
Potatoes—9-oz., 40-oz. Wes.				
F. F.	1.40	.17	1.35	.17
shred		.07½		.07½
Pumpkin & Squash—12-oz., 4-lb.				
Atl.	1.63-75	.09	1.63	.09
Wes.	1.15-30	.08	1.15-30	.08
Spinach—10-oz., 48-oz., Leaf				
So.	1.78	.09½	1.78	.09½
Wes.	1.05-35	.09½-.11	1.05	.08½
Spinach—10-oz., 40-oz., chopped				
So.	1.78		1.78	
Wes.	1.00-25	.09	1.00	.10
Succotash—10-oz., 40-oz.				
Atl.	2.05-25	.23	2.25	.23
Wes.	1.65-95	.20	1.65-95	.20

FROZEN FRUITS

	June 1, 1960 —Retail—	—Inst.—	July 1, 1960 —Retail—	—Instl.—
Apples (30# sliced)				
Atl.		.14		.14
So.		.12		.12
Wes.		.08½		.08½
Apricots (30# halved)				
Wes.		.12		.12
Cherries, Red (30# Pitted)				
Atl.		.14		.14
Mid.		.15		.15
Wes.		.20½		.20½
Cherries, Sweet (30#)				
Wes.		.20		.20
Grapes and Pulp (44#)				
Atl.		.12½		.12½
Peaches, Freestone (12-oz., 30# sliced)				
Atl.	2.58	.18	2.58	.18
Mid.		.14		.14
Wes.	2.05	.15	2.05	.15
Blackberries (12-oz., 30# sliced)				
Wes.	1.50	.23½	1.50	.23½
Blueberries (12-oz., 30#)				
Atl.	3.29	.27	3.29	.27
Mid.		.25		.25
Boysenberries (30#)				
Wes.	2.25	.13½	2.25	.13½
Raspberries, Black (10-oz. 30#)				
Atl.	2.99	.27	2.99	.27
Wes.		.25		.25
Raspberries, Red (10-oz., 30#)				
Atl.	2.90	.25	2.90	.25
Mid.	2.20		2.20	
Wes.	2.20	.30	2.20	.30
Strawberries (10-oz., sl., 30# whl.)				
Atl.	2.15-56	.23	2.15-56	.23
Wes.	2.05	.21¾	2.05	.21
Mixed Fruits (12-oz.)				
Wes.	2.75		2.75	

FROZEN JUICES

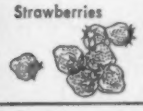
	June 1, 1960 —Retail—	—Inst.—	July 1, 1960 —Retail—	—Instl.—
Grapefruit				
So.	1.20	5.50	1.20	5.50
Lemon				
Wes.	.78		.78	
Lemonade				
So.	1.16		1.16	
Wes.	.78		.78	
Lemonade, Pink				
Wes.	.78		.78	
Limeade				
So.	1.00		1.00	
Orange				
So.	1.50-55	7.00-25	1.50	7.25
Wes.	1.50-87		1.50-87	

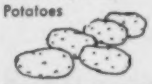
Can be used as close as one day before harvest!

Phosdrin®

INSECTICIDE

Phosdrin insecticide control chart

CROP	INSECT	INTERVAL BETWEEN LAST APPLICATION & HARVEST*
FRUITS Apples Pears Peaches Plums	Aphids Mites Grasshoppers Lygus bugs Red-banded leaf roller	1 day
Strawberries 	Aphids Mites Strawberry leaf roller Grasshoppers, Salt-marsh caterpillar, Lygus bugs	1 day
Grapes	Aphids, leaf folder, leaf hoppers, mites, red-banded leaf roller, Lygus bugs	5 days
VEGETABLES Broccoli Brussels sprouts Cabbage Cauliflower Collards Kale	Aphids Cabbage looper Imported cabbageworm, leaf hoppers, Salt-marsh caterpillar, Mites, Cutworms (climbing), Dipterous leafminer (adult), Lygus bugs, Grasshoppers	1 day on broccoli and cabbage; 3 days on others
Turnips Turnip Tops Mustard Greens	Aphids, Cabbage looper, Imported cabbageworm, False chinch bug, Dipterous leafminer (adult), Grasshopper, Leaf hopper, Mites	3 days
Beans Cucumbers Tomatoes	Aphids, Leaf hoppers, Mites, Grasshoppers, Mexican Bean Beetle	1 day

CROP	INSECT	INTERVAL BETWEEN LAST APPLICATION & HARVEST
VEGETABLES (cont.) Lettuce	Aphids, Cabbage looper, corn earworm, cutworms (climbing), Dipterous Leafminer, (adult) Imported cabbageworm, Grasshoppers, Leaf hopper, Mites, Lygus bugs, Salt-marsh caterpillar, False chinch bug	2 days
Onions (including green onions)	Thrips, Cutworms (climbing)	1 day
Spinach	Aphids, Cabbage looper, Imported cabbageworm, Grasshoppers, Leaf hopper, Mites, Dipterous Leafminer (adult), Cutworms (climbing), Salt-marsh caterpillar, False chinch bug	4 days
FIELD and FORAGE Alfalfa, Clover (Seed and Hay)	Aphids, Grasshoppers, Leaf hoppers, Cutworms (climbing), Mites, Lygus bugs Alfalfa weevil larvae	1 day
Corn (Field, Sweet, and Popcorn)	Aphids	1 day
Sorghums	Aphids Corn earworm	3 days
Pea Vines, Peas, Potatoes 	Aphids, Grasshoppers, Leaf hoppers, Mites	1 day

READ THE DIRECTIONS ON THE LABEL AND FOLLOW THEM AT ALL TIMES

*Intervals and tolerances established by U.S.D.A. and F.D.A. as published in Federal Register, Oct. 11, 1957.

For latest technical information on Phosdrin and its applications write to:

SHELL CHEMICAL COMPANY

AGRICULTURAL CHEMICALS DIVISION, 110 West 51st Street, New York 20, N.Y.

SHELL

Cleans better

Chlorinated DITON, a new product from Diversey Research . . . It's new, it's different, it's a better equipment cleaner!

New DITON is chlorinated to clean stainless steel surfaces brighter.
New DITON is chlorinated to make stainless steel surfaces more sanitary.
New DITON is chlorinated to clean better, rinse faster.
New DITON is chlorinated to clean better in every kind of water.

Proof? 873 plants switched to DITON in its first 60 days. Ask your D-Man about DITON.

SUPPLIERS NEWS

Companies and Plants

Clinton Corn Processing Co., Clinton, Iowa, a division of Standard Brands, Inc., recently leased warehouse space in the Rock Island Freight Station at Memphis, Tenn., for its bulk corn syrup station to be moved there from St. Louis, Mo.

Brooks Rotameter Co., Lansdale, Pa., has changed its name to Brooks Instrument Co., Inc.

Reynolds Metals Co., Richmond, Va., announced a long range program to equip all its aluminum foil manufacturing facilities with ultrasonic seam welding equipment.

Riegel Paper Corp., New York City, and **Lassiter Corp.**, Charlotte, N. C., a converter of packaging films, have signed an agreement proposing the merger of the two firms.

J-E Plastics Manufacturing Corp. has opened a new plant in Yonkers, N. Y., for the production of semi-rigid transparent (acetate) plastic packaging for frozen, refrigerated, and dehydrated foods.

The Aliquippa Works of **Jones & Laughlin Steel Corp.**, Aliquippa, Pa., has announced that its new continuous annealing line has gone into operation for the production of tin plate. It is designed to operate at speeds up to 2,000 ft. per minute.

American Can Co., New York City, will join with Wheaton Glass Co., Millville, N. J., to create a subsidiary to manufacture and sell glass containers, according to a prospectus filed with the Securities & Exchange Commission. The firm will be known as American-Wheaton Glass Corp.

The merger of **Continental Can Co.** with **Hazel-Atlas Glass Co.** in 1956 is being defended by Continental Can in a federal non-jury trial with Federal Judge Frederick vanPelt Bryan presiding at the outset. The Justice Department seeks to show that the acquisition of the glass firm by Continental Can violates Section 7 of the Clayton

ANNIVERSARY AWARD. George Fiero (l.), president, Chemical Specialties Manufacturers Assn., was presented with a gold-plated aerosol can by Roger F. Hepenstal, president, Can Manufacturers Institute. The presentation of this award was a highlight of the recent CSMA convention in Chicago. It was given "on the occasion of the Sesquicentennial of the metal can, and in recognition of the contribution by the chemical specialties industry." The aerosol can symbolizes one of the newer and fast-growing uses of metal containers.

Act. This section aims to prevent mergers which substantially lessen competition or tend to create a monopoly. Trial was recessed at the end of June; testimony will be resumed in October. A decision may come next spring.

Brockway Glass Co., Inc., Brockway, Pa., has filed a registration statement with the Securities and Exchange Commission covering a proposed public offering of 162,000 shares of common stock, par value $5 per share. The proceeds will be applied toward equipping a new glass container plant at Rosemont, Minn.

Men in the News

Ernest Hart, president, Food Machinery & Chemical Corp., San Jose, Calif., has retired after 46 years of service with the firm and its predecessor companies. **Dr. Carl F. Prutton** has resigned as executive vice president in charge of the chemical divisions. He will continue as a director.

Raymond F. Myers has been elected vice president in charge of manufacturing and transportation, Refined Syrups & Sugars, Inc., Yonkers, N. Y.

R. J. Sund

M. O. Schur

E. M. Dodd

Roy J. Sund has been elected president of American Can Co., New York City. He succeeds **William C. Stolk,** who becomes chairman of the board of directors and continues as chief executive officer.

Milton O. Schur has been named vice president of research, Packaging Div., Olin Mathieson Chemical Corp., New York City.

Edward M. Dodd has been elected a vice president of Diamond Crystal Salt Co., St. Clair, Mich.

Three new vice presidents have been appointed to the Corn Refining Div., Penick & Ford, Ltd., New York City. They are: **Dr. J. E. Killinger,** vice president of technical sales service and field development; **Dr. C. C. Kesler,** vice president of research and development; and **S. H. Foster,** vice president of production.

Charles H. Swan has been appointed midwestern regional sales manager, Metro Glass Div., National Dairy Products Corp., Jersey City, N. J.

Lawrence G. Schnauz has been promoted to eastern regional packaging sales manager, Reynolds Metals Co., Richmond, Va.

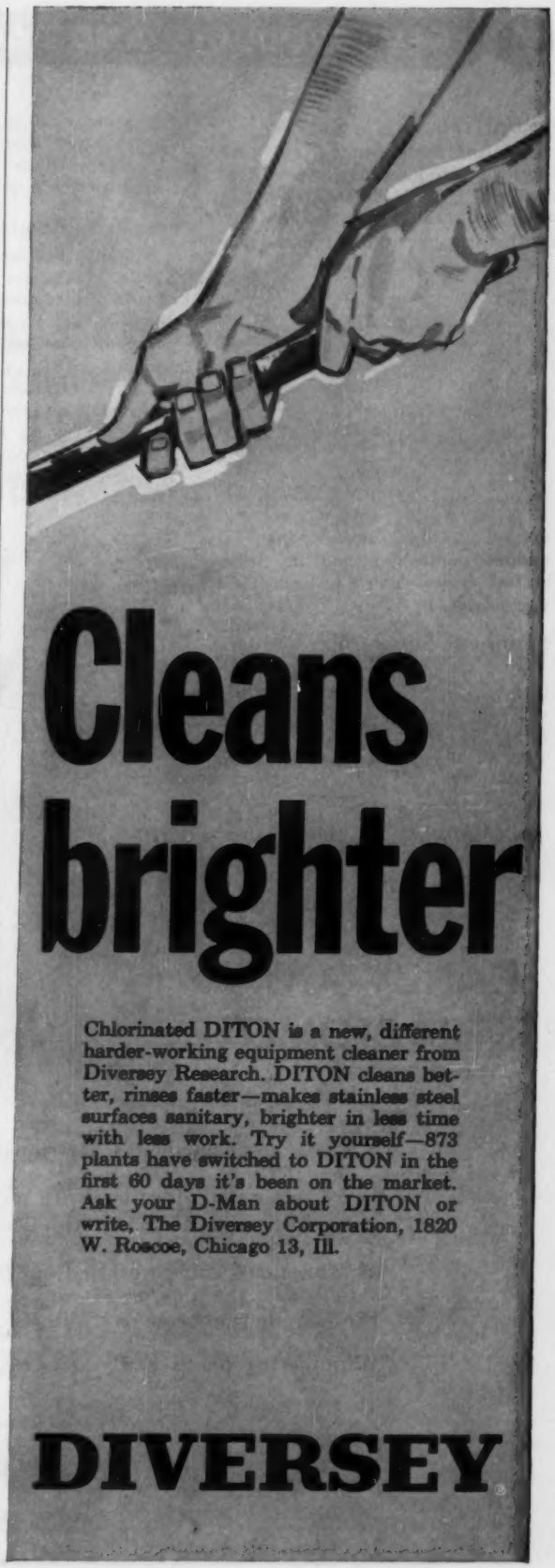
Curtis N. Painter has been elected a member of the board of directors, and **Roger H. Hetzel** to vice president and general manager, Packaging Materials Operations, Armstrong Cork Co., Lancaster, Pa.

William P. Peters has been named general manager, research and development, Folding Carton and Boxboard Div., Container Corporation of America, Chicago, Ill.

Obituaries

Arthur H. Downey, 62, vice president in charge of research and technology, Magnus, Mabee & Reynard, Inc. New York City essential oil company, died recently after a brief illness.

Jay D. Green, 52, division resident inspector of quality control, Continental Can Co., died recently of a heart attack at his home in Milwaukee, Wis.


Cleans
brighter
Chlorinated DITON is a new, different harder-working equipment cleaner from Diversey Research. DITON cleans better, rinses faster—makes stainless steel surfaces sanitary, brighter in less time with less work. Try it yourself—873 plants have switched to DITON in the first 60 days it's been on the market. Ask your D-Man about DITON or write, The Diversey Corporation, 1820 W. Roscoe, Chicago 13, Ill.
DIVERSEY

NEW PRODUCTS AND PACKAGES

Instant Tea

Standard Brands Inc., New York City, has introduced new Instant Tender Leaf Tea which dissolves in tap water. The new product has been featured in newspaper, magazine and tele-

vision advertisements during the months of May, June and July. Its introduction was timed to launch the iced tea season.

Spaghetti Sauce Mix

R. T. French Co., Rochester, N. Y., has introduced a new two-envelope package of Italian-style Spaghetti Sauce Mix. It is a blend of dehydrated vegetables, spices, and herbs. With this mix, a sauce can be made in 10 minutes; only water and tomato paste need be added. Each envelope makes enough spaghetti sauce for 4 servings.

Frozen Seafoods

San Juan Fishing and Packing Co., Seattle, Wash., has introduced a line of frozen three minute seafood entrees in boil-in-bags. Packed under the brand names of San Juan and Ship Ahoy, the precooked dishes are in sealed pouches which require only three minutes boiling and they are ready to eat. The cartons are litho-printed Hi-Fi Glamakote reproductions. They are produced by Marathon, a division of American Can Co., Menasha, Wis., and manufactured at the company's Modesto, Calif., plant.

Low Calorie Meal

Sells' Specialties, Inc., New York City, has introduced a special blend of foods in an instant formula called Low Calorie Diet. It is designed to furnish all of the day's nutritional needs, satisfies a dieter's hunger pangs, and permits him to loose excess weight. Each package contains four sealed

2-oz. polyethylene-lined foil envelopes of the formula, pre-measured to provide one meal's essential nutrients. Mixed with 8-oz. of water, it makes

CARL ZEISS

HAND SUGAR REFRACTOMETER

MADE IN WEST GERMANY

A small, compact, handy instrument of great accuracy.

Two models available; one with measuring range of 0—50%, the other of 0—85% dry substance (two scales: 0—50% and 50—85%).

Measurements can be carried out by transmitted or reflected light.

Built-in thermometer 10—40° C.

Illuminating prism easily detached for cleaning.

Free detailed literature sent on request

CARL ZEISS, INC.

485 FIFTH AVENUE, NEW YORK 17, N. Y.

COMPLETE SERVICE FACILITIES

a bland, slightly sweet drink. The carton was designed and produced by Rossotti Lithograph Corp., North Bergen, N. J.

Soy Sauce

Oriental Foods, Inc., Los Angeles, Calif., has introduced its Jan-U-Wine soy sauce in a new 12-oz. glass container. The line includes 3-oz. and 5-

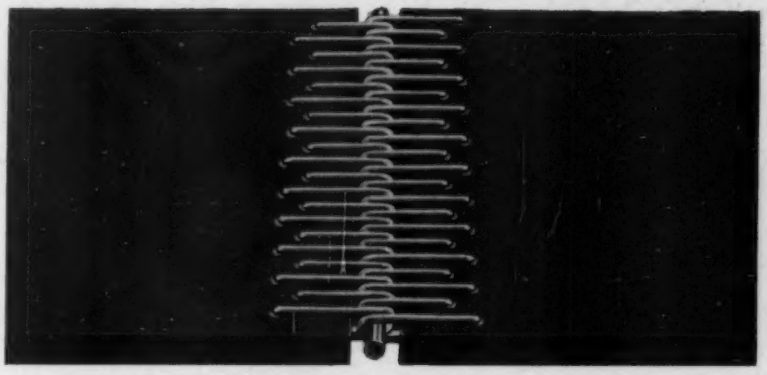
oz. bottles, each with identical but proportionately smaller silhouettes. The jars are manufactured by Hazel-Atlas Glass Div. of Continental Can Co., New York City.

Ice Cream Toppings

Nesbitt's Fruit Products Co., Los Angeles, Calif., is using a specially molded glass jar with a wide-mouth opening for easy removal of product

for its line of ice cream toppings. A merchandising rack to display the toppings at retail level was developed by Melco Wire Products Co., Glendale, Calif. Individual jar holders exactly fit the jars; space for 36 jars is provided. The jars are supplied by Hazel-Atlas Glass Div., Continental Can Co., New York City; labels are by Graphic

PULL LOOSE ENDS
TOGETHER WITH
CLIPPER
Hooks and Lacers



Time is money . . . and you can save time in joining two loose ends with Clipper Hooks and Lacers. They produce secure, smooth joints in minutes embedding hooks flush with the surfaces of pieces joined. When fastening belts, aprons, or ribbons, they provide a flat, flexible joint that rides freely over conveyor rollers. When joining plastics and other rigid materials they produce a firm "hinge" that is as strong as the material itself. In either case, pieces up to 12 inches wide and 13/32 inches thick are laced in one easy operation. So whenever you have a problem that calls for making two pieces one — check with Clipper.

For more information— *Detailed product information and case history examples of Clipper machine-lacing benefits are contained in Bulletin No. 157. Send for your free copy today.*

Ask your Industrial Distributor for Clipper Products

Clipper BELT LACER COMPANY

994 Front Ave., N. W., Grand Rapids 2, Michigan

Press, Inc., Los Angeles, Calif.; and the twist-type screw caps are by White Cap Co., Chicago, Ill.

Green Beans

Lord-Mott Co., Inc., Baltimore, Md., has introduced a new item—seasoned French Style Green Beans. A successful test marketing period was

reported for the new product. It will now be offered to all markets. The label, produced by Price Brothers Lithograph Co., is similar to that used for the firm's French Style Beans. The seasoned beans can be served either hot or cold.

New Package Briefs

Squeeze Lemons in New Shipper: ReaLemon-Puritan Co., Chicago, Ill., is distributing a new self-shipper, shelf-extender display for its ReaLemon plastic "sitting" squeeze lemons. It was designed by Creative Displays, Inc., Chicago, Ill., and produced by Stone Container Corp., Chicago.

New Package Design for Mixes: General Mills is using the "Country Kitchens" theme design for its 8 flavors of Betty Crocker Country Kitchens cake mixes. The packages were designed by Lippincott and Margulies of New York.

Duplex Potato Chip Bag: Blue Star Potato Chip Corp., Houston, Pa., is using a new duplex potato chip bag for its chips which was designed and produced by Arkell and Smoths, Hudson Falls, N. Y.

Vinegar in "Sur-Grip" Bottle: C. H. Musselman Co., Biglerville, Pa., is using an hour glass shape bottle which makes gripping and pouring easy for its full strength apple cider vinegar. The bottle is by Metro Glass Div., National Dairy Products, Jersey City, N. J.; labels, Piedmont Label Co., Bedford, Va.; and closures by White Cap Co., Chicago, Ill.

New Cartons for Seafood Dinners: Brunswick Quick Freezer, Inc., Brunswick, Ga., is using a new carton, offset printed in 5 colors, for its frozen seafood pies and dinners. Cartons were designed and manufactured by the Greensboro, N. C., plant of Container Corporation of America.

Pin Money Gets New Labels: Pin Money Foods, Inc., Old Saybrook, Conn., packers of fancy pickles and relishes, have adopted a newly designed label for its products. The labels were designed and manufactured by Muirson Label Co., Inc., Meriden, Conn.; closures by Crown Cork & Seal Co., Philadelphia, Pa.

New Size for Jelly: Griffin Manufacturing Co., Muskogee, Okla., is using a new 18-oz. jar with a wide mouth opening for its jellies and preserves. The containers are supplied by Brockway Glass Co., Brockway, Pa.; caps, White Cap Co., Chicago, Ill.; and labels, Epson Lithograph Co.

Vinegar in Decanters: H. J. Heinz Co., Pittsburgh, Pa., has re-styled three vinegar products and added a fourth to make a new line of Heinz decanter-packaged vinegars. Each decanter has a Cello-Seal top and a removable shaker. The line of four includes malt, tarragon, salad, and wine vinegars.

STANDARD NAILED PICKING BOXES

For Fast, Economical Tomato Handling

Adapted to Palletization, Fork Truck Handling, Automatic Box Dumpers.

Holds 50 pounds. **Western Style→**

"THE BOX THAT HANDLES A TON A MINUTE"

RIGID • STURDY • LONG LIFE SPAN

THE WOODEN BOX INSTITUTE

55 New Montgomery St. San Francisco 5, Calif.

The Paulson Bean Picker—most economical on the market

. . . operates efficiently on level or rolling terrain. The Paulson Bean Picker is equipped with belt drives and new improved Wisconsin engines with starters and 12-volt electrical systems. One engine operates reels and conveyors; the other operates a fan for maximum control of picking mechanisms. Tractor-drawn, the two-row picker picks rows 30-40 inches apart. Height is adjustable by hydraulic cylinder.

Custom equipment manufactured for canners and packers

PAULSON BROTHERS INDUSTRIES, INC.

Clear Lake, Wisconsin P.O. Box 237 Telephone 4805

Chisholm Sales and Engineering Company of Niagara Falls, Canada, is now our distributor in Canada

INDUSTRY NEWS

Overseas Plants

U. S. procesed food packers are showing increasing interest in subsidiary or affiliated operations in other countries. Here are some recently-announced developments:

Gerber Products Co., Fremont, Mich., now owns a majority interest in Gerber Products S.A. de C.V., Mexico City, Mexico. In Australia, Gordon Edgell & Sons Ltd. is now licensed to pack and sell Gerber baby foods. In Venezuela, a similar agreement has been concluded with C.A. Venezolana de Alimentos, Caracas, and in Japan one with Meidi-Ya Shokuhin-Kopo Co., Ltd., Osaka.

Beatrice Foods Co., Chicago, Ill., has established its first overseas operation. The canning, glasspacking and freezing firm has joined with Fraser & Neave Ltd., carbonated beverage company of Malaya, in establishing a dairy products plant at Petaling Jaya, suburb of Kuala Lumpur. Production will start in October.

General Foods Corp., White Plains, N. Y., has completed a soluble coffee processing unit and a new research laboratory at Alfred Bird & Sons Ltd., its English subsidiary at Birmingham. The company also has formed a management group in Switzerland, to direct company operations in Germany, Holland and Sweden.

Calif. Packing Corp., San Francisco, has two new overseas subsidiaries, according to Roy G. Lucks, president. South African Preserving Co. (Pty.) Ltd. has been organized to pack fruits in South Africa for marketing under the "Del Monte" label, largely in the United Kingdom. Productos Del Monte, S.A. de C.V., has been set up in Mexico to pack tomato and chili products, and will have a new plant at Irapuato, some 200 miles north of Mexico City.

Carnation Co., Los Angeles, Calif., announces that its Brazilian affiliate (jointly owned by Carnation's General Milk Co. and by Standard Brands, Inc., New York City) is now in operation. Produtos Laticinios de Brasil Ltda., located at Itaperuna, is the first instant powdered milk factory of Brazil.

Consolidated Foods Corp., Chicago,, Ill., has acquired 51% of the stock of Vinegrera Venezolana, vinegar and sauce firm of Venezuela. The name has been changed to Alimentos Mundiales de Venezuela S.A., and will market under the "Monarch" brand.

Companies and Plants

Minute Maid Corp., frozen food firm of Orlando, Fla., will spend $8,000,000 in the balance of 1960 and in 1961 for additional manufacturing facilities and for enlargement of its citrus growing operations.

Burns-Alton Corp. is the new name of Alton Canning Co., Inc., Alton, N. Y., packer of canned and frozen foods. Edward E. Burns is president.

Haywood County Cooperative and Vegetable Assn. has opened a new, $70,000 vegetable packing plant in Waynesville, N. C. The co-op plans to pack tomatoes and green peppers this year.

Swift & Co., Chicago, Ill., is planning to build a plant at Rochelle, Ill., for the purpose of processing cattle and hogs, and smoked meats such as hams, bacon and sausages. Completion date is set for late 1961.

Hebrew National Kosher Foods, Inc., Brooklyn, N. Y., will build a new $1 million plant in Maspeth, Queens, N. Y. The firm plans to move its entire production to the new plant within a year.

Standard Brands, Inc., New York City, has purchased a major interest in Planters Nut & Chocolate Co., Wilkes-Barre, Pa. The transfer of stocks has, as yet, not been made by Planters.

Stahl-Meyer, Inc., New York City, plans to build a multi-million dollar meat and food processing plant in the Hunts Point area of Bronx, N. Y.

Michigan Fruit Canners, Inc., Benton Harbor, Mich., is installing liquid sugar systems for its Benton Harbor and Fennville plants.

Men in the News

Robert E. Snively, former executive vice president and a director, has been elected president of the Illinois Canning Co., Hoopeston, Ill.

Eugene Woolley, William B. Cash, and **Lowry H. Crites** have been appointed vice presidents of General Mills, Minneapolis, Minn.

John B. Holbrook has been appointed an associate director of manufactur-

Don't Give an Inch — to FOAM

*use Dow Corning Silicone Defoamers**

There's a *right* tool for every job. In foam control it's Dow Corning silicone antifoamers or defoamers . . . job-proved thousands of times over as the most efficient, most economical, and most versatile foam suppressors available.

*At prescribed levels, are sanctioned by FDA

FREE SAMPLE
and new manual on foam control

first in silicones

Dow Corning CORPORATION
MIDLAND, MICHIGAN

Dept. 1708

Please rush a FREE SAMPLE of a Dow Corning silicone defoamer for my product or process, which is (indicate if food, aqueous, oil or other): _____

NAME _____

POSITION _____

COMPANY _____

ADDRESS _____

_____

Total Sales and Net Income of U.S. Processed Food Firms

for periods indicated, to dates indicated, in thousands of dollars (000 omitted), as reported by the companies. When the period is "12 mo to 1/1", it is for the previous calendar year. *Not reported. †Includes Shedd-Bartush Foods (merged 1959). #Loss.

FIRM/HEADQUARTERS	—BUSINESS—	—PERIOD—	—TOTAL SALES—		—NET PROFITS—	
			1959	1960	1959	1960
Beatrice Foods Co., Chicago, Ill.†	Dairy, conven.	3 mo. to 6/1	$109,328	$118,997	$1,750	$1,879
Gerber Prods. Co., Fremont, Mich.	Baby foods	12 mo. to 4/1	126,833	131,118	7,255	7,070
Armour & Co., Chicago, Ill.	Meats, etc.	6 mo. to 5/1	922,339	840,514	4,526	7,057
Green Giant Co., LeSueur, Minn.	Canned vegs.	12 mo. to 4/1	57,143	64,211	1,919	1,816
Chock Full O'Nuts, New York City	Nuts, restrts.	9 mo. to 5/1	20,054	21,202	1,149	1,397
Seeman Bros., Inc., New York City	Cd., froz. food	8 mo. to 5/1	85,338	83,306	288	1,061
Central Soya Co.	Soybean prods.	9 mo. to 6/1	209,451	207,768	4,830	2,764
General Foods Corp., Wht. Pl., N. Y.	Packaged food	12 mo. to 4/1	1,052,964	1,087,076	54,145	61,071
Minute Maid Corp., Orlando, Fla.	Frozen foods	6 mo. to 5/1	48,291	62,389	1,973	2,555
Illinois Canning Co., Hoopeston, Ill.	Canned vegs.	12 mo. to 5/1	8,326	8,849	205	134
Natl. Dairy Prods. Corp., New York, N. Y.	Varied foods	3 mo. to 4/1	386,662	418,512	9,825	10,693
Wilson & Co., Chicago, Ill.	Meats, etc.	6 mo. to 5/1	529,619	324,308	3,938	677 #

ing & engineering for General Foods Corp., White Plains, N. Y.

W. H. Merrick, assistant treasurer, has been named treasurer of Green Giant Co., Le Sueur, Minn.

Paul J. Ritter has been elected president of P. J. Ritter Co., Bridgeton, N. J., and president of Ritter's subsidiary, Brooks Foods, Inc., Collinsville, Ill.

James A. Gordon has been appointed advertising manager, H. J. Heinz Co., Pittsburgh, Pa.

Milan D. Smith, president, National Canners Assn., has been appointed to an exchange team of food executives that will take a one-month tour of food plants and research institutions in Russia. **Dr. G. E. Hilbert,** director, Foreign Research & Technical Programs Div., Agricultural Research Service, USDA, will serve as chairman of the team.

Dr. Melvin A. Benarde, a University of Maryland specialist in food quality control and research, is now on the staff of Vita Food Products of Maryland, Inc., Chestertown, Md.

Albanus Phillips, Jr., formerly president of Phillips Packing Co., Cambridge, Md., before its merger with Consolidated Foods Corp., has been named general manager of Bramble Canning Corp., Greenwood, Dela.

Obituaries

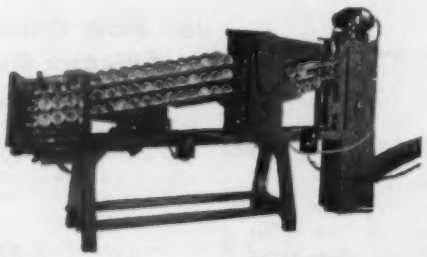
Erwin Hamm, 71, formerly manager of the Mayville Canning Co., Mayville, Wis., died recently following a long illness.

Mortimer T. Fisher, 71, retired vice president, John G. Paton Corp., New York City food manufacturer, died recently at his home in Yonkers.

Walter F. Silbersack, 58, president, American Home Products Corp., New York City, died recently at his home in Darien, Conn., after a long illness.

Edwin S. Thorne, 94, operator of the former Geneva Preserving Co. plant at Geneva, N. Y., until his retirement in the early '40's, died recently.

Charles C. Boettge, 64, retired owner of the Berlin Canning & Manufacturing Co., Berlin, Wis., died recently.



Model PCD
High Speed Case Packer

The High Speed Burt Case Packer fills a 2-layer case with a single stroke. The operator only has to place the case in position. It's the easiest can handling method available.

PACK 24 CANS WITH 1 STROKE!

BURT

BURT MACHINE COMPANY
401 East Oliver Street
Baltimore 2, Maryland

Experimental Drill Performs Efficiently

An experimental drill has been tested for three years to determine its advantages over conventional equipment for planting pea seed. Features of the drill include:

1. Fertilizer is placed in a band to the side of each row and at depths ranging from 0 to 5 inches below the level of the seed.
2. Seed is spaced uniformly within the row.
3. Seed is placed at a uniform depth.
4. The soil is pressed uniformly around the seed and covers it with loose soil.

These features all combined to give a more uniform performance and higher yields than could be obtained with conventional pea fertilization and planting equipment.

FERTILIZER SHOES on this drill were mounted ahead of the seeder units. By constructing it in this way, the seed is not disturbed after being deposited in the soil.

The drill did not noticeably improve the spacing of seed within the row, and it caused only slightly less injury to seed passing through its metering mechanism than did conventional fluted feed drills.

If a machine containing the good points of this drill were commercially available, New York pea growers could produce peas much more efficiently.

—Experiments With An Improved Drill for Fertilizing and Planting Processing Peas by M. T. Vittum, C. B. Sayre, and B. E. Clark, of New York State Agricultural Experiment Station, Geneva, N. Y.

Polyethylene Film for Hot House

Polyethylene film in 16 foot lengths is used instead of glass frames at Hirzel Canning Co., East Toledo, Ohio. Tomato plants, transplanted from flats started in the greenhouse, are set out

HOTHOUSES are covered with 16 ft. lengths of polyethylene film.

in the hot houses. The film .004 in. thick, and some of it used for two seasons, is stretched over the top and tacked into place.

Temperatures are kept at 60-65°. According to Carl Hirzel, Jr., only plants which thrive in the high humidity are suitable for this method of growing. One big advantage is control of the plant from the seed to harvest.

New York Scientist Develops Workable Bean Harvester

When harvesting beans under the present system, the farmer uses three

A DO-IT-YOURSELF KIT

A like new abrasive coating for your batch or tub type vegetable peeler. This kit consists of adhesive, abrasive and all necessary tools for recoating. You have very little down time as it is a one coat method and ready for use in 48 hours.

This coating is also very practical for use as nonslip for steps on stairways, floors, implements, drive rolls on conveyors, etc. Write us about your problem as we are sure we can be of help to you.

RECOATING SERVICE

For the past 12 years we have been recoating batch or tub type peeler cylinders and discs for institutions, canners and potato chip companies. We have serviced many, many machines with our recoating service without complaints.

Send us your cylinders and discs for the best abrasive coating available. The cylinders and discs must be crated separately for complete protection. Your parts when returned to you will look and work like new.

ABRASIVE COATED TUBING

For your continuous vegetable peeler which has many advantages over the ceramic parts originally furnished.

The construction is asbestos phenolic tubing coated with silicon carbide abrasive and phenol formaldehyde adhesive.

This tubing is 2/3 less in weight offering much longer life to your V belts.

Resistant to breakage from stones, roots, etc. Reduces expensive replacements and costly down time.

Furnished in extra coarse, coarse, medium, fine and extra fine. Made in 18 inch lengths with easy to install neoprene adapters. Two 18 inch lengths per shaft or 32 lengths per machine.

Over all, costs less than the original installation.

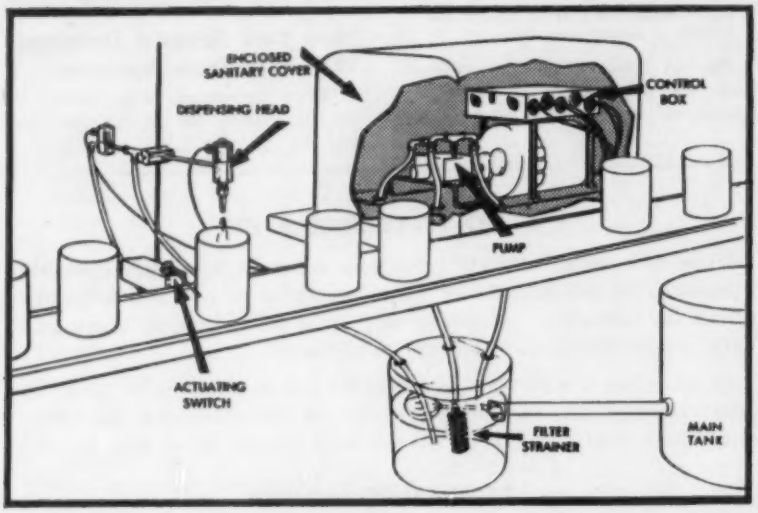
Milwaukee Motive Mfg. Co.

1825 S. KINNICKINNIC AVENUE

MILWAUKEE 4, WISCONSIN MITCHELL 5-3730

YOU WILL SAVE MONEY WITH...

THE HARDY "ELECTRO-PORTIONER"



The Hardy Salt Company — leader in product development — takes pride in announcing the finest liquid dispensing equipment on the market today.

NO WASTE INGREDIENTS — Save thousands of dollars yearly on salt and sugar costs . . . your sweet brine goes **only** into the container . . . no overflow. Unit dispenses **accurately** measured amounts of brine and other liquids.

NO EXPENSIVE SALT TABLETS — Salt-calcium chloride tablets cost over $20 per 100 lbs.; Hardy Canners Fine Salt and calcium chloride, purchased separately, cost less than 1/10th this figure. Since salt, sugar, calcium chloride and MSG are dispensed in liquid form instead of tablet form, humidity and steam vapors are no longer a problem.

SAVES TIME AND LABOR — Handles up to 300 containers per minute. Completely automatic . . . requires no operator.

EASY TO INSTALL AND OPERATE — Just dial the amount of liquid to be dispensed. Positive action — the can trips the sensitive Micro-switch — requires only inches of space and headroom. Totally enclosed recirculation — keeps out air and dirt, assuring you of higher quality and finer flavor in your products.

When dispensing brine with the Hardy "Electro-Portioner", use Hardy Canners Fine Salt . . . custom-screened for fast, even dissolving.

MAIL COUPON TODAY

Hardy SALT COMPANY

P. O. Drawer 449, St. Louis 66, Mo.

Please send me complete information on the Hardy "Electro-Portioner"

NAME.....

COMPANY.....

STREET.....

CITY.....ZONE.....STATE.....

6018

different machines. One machine pulls the beans; the second rakes them into windrows; and the third gathers and harvests them.

THE 1960 MSU TOMATO HARVESTER will be demonstrated on August 12 during the Tomato Field Day on the Horticulture Farm, Michigan State University. Also to be shown will be a variety of machines which show promise for harvesting, tests on mechanical weed control, plant spacing, and methods of bulk handling.

Professor Wesley W. Gunkel, Department of Agricultural Engineering, New York State Agricultural Experiment Station, has developed a machine that will perform all of these functions. In preliminary tryouts, the machine has also indicated that it will cut harvest time in half and lower costs by a third.

This machine will fit onto a standard combine. It operates by thrusting short rubber fingers down among the plants and lifting them so a moving blade can cut the stems below the bean pods. A sorghum-harvesting attachment served as a basis for this harvester.

More research and testing will be necessary before a practical machine can be made commercially available.

—Farm Research, New York State Agricultural Experiment Station, Geneva, N. Y.

Research Resumes

A report by J. C. Walker and R. H. Larson, University of Wisconsin, announces the development of the first **clubroot resistant variety of cabbage.** Named Badger Shipper, this variety is also superior to others in tenderness and flavor.

Seaway, a new early maturing **bush-type pea bean** that is resistant to common bean mosaic, has been released for increase to the Michigan Foundation Seed Assn. by the U. S. Dept. of Agriculture and Michigan Agricultural Experiment Station.

See this space next month for our regular every-other-month department:

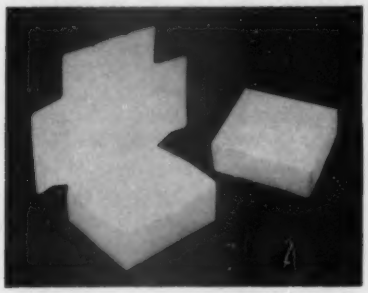
Food Technology

NEW EQUIPMENT/SUPPLIES

Carton System

DESCRIPTION: This carton system produces a new heat sealable rigid carton which requires no overwrap. The system includes fully automatic set-up and closing and sealing machines. Trade name: Diotite Carton System.

FEATURES: The carton and machinery can be used for packaging frozen foods, cookies, candy, cereals and crackers. The system affords frozen food packaging at a cost equal to or



slightly lower than the present packaging cost for items such as vegetables and fruits, fish and fish sticks, cook-in pouches, etc. The closing machine operates at speeds of 120 to 160 cartons per minute; it can be changed from one size to another in 30 minutes or less.

MFR.: Continental Can Co., 100 E. 42nd St., New York 17, N. Y.

Ultrasonic Joining

Description: A method of joining polyster sheet, film, and tape requiring no joint preparation, external heat, or adhesives. Joining is made by high-frequency mechanical vibration which creates heat at the joint interface to form a bond.

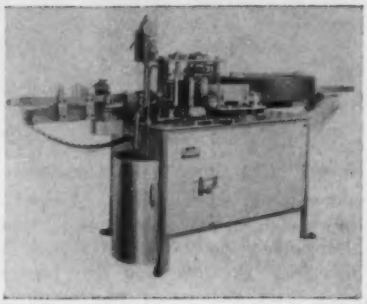
Features: Joints are permanent and do not increase in thickness. Magnetic or decorative coatings, or photographic emulsions, do not weaken the joint. The equipment does not need a skilled operator; operation is by pushbutton or food pedal.

Mfr.: International Ultrasonics, Inc., Rahway, N. J.

Labeling Machine

DESCRIPTION: An automatic straightline continuous motion labeling machine which handles foil, paper or other materials. Trade name: Continuous Motion SL-85 Labeler.

FEATURES: Can be used with any conveyorized line for handling a wide range of glass and metal containers of various shapes. It applies from 45 to 85 labels per minute. A minimum of



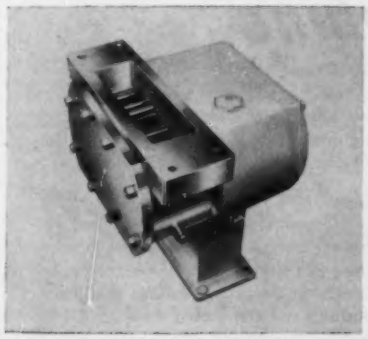
change parts is required for label changes.

MFR.: MRM Co., Inc., 191 Berry St., Brooklyn, N. Y.

Top Feed Rotary Pump

DESCRIPTION: This top feed, rotary pump can be used for pumping viscous fluids or particles up to ¾" in size.

FEATURES: It is designed to handle products such as potato salad, cookie dough, cheese, pie fillings, lard lumps, whole kernel corn, etc. It features CP resilient rotors in either single lobe



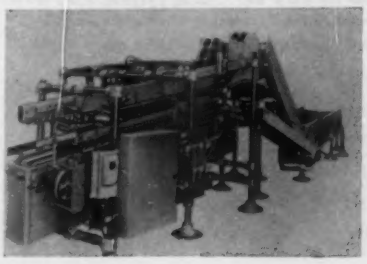
or 5-lobe. The inlet measures 27 sq. in.

MFR.: Creamery Package Mfg. Co., 1243 W. Washington Blvd., Chicago 7, Ill.

Case Packer

DESCRIPTION: This machine is a high speed automatic can packer for packing cans into top loading cases.

FEATURES: Speeds up to 1200 a



FOR A PERFECT RECORD OF RETORT PROCESSING

Hang a Cook-Chex tag on every basket before it goes into the retort and eliminate all guess-work when it comes out of the retort. On each Cook-Chex tag, a **chemically impregnated circle** turns from purple to green, to provide infallible proof of proper and complete "in-can" processing. Cannery inspectors approve and recommend Cook-Chex. Major packers all over the world use them to:

1. Eliminate wrong cook schedules.
2. Guard against "by passing" retorts.
3. Warn of any failure in retort processing.
4. Keep retort baskets in sequence.
5. Provide low-cost permanent records for cooking plants.

The cost of Cook-Chex protection is negligible . . . less than one cent for 75 cases of No. 300 cans.

SEND FOR FREE TEST SUPPLY TODAY

You'll receive a generous supply of Cook-Chex at no cost; send your name, title, and plant address to Dept. CP 8

ATI Aseptic-Thermo Indicator Company

11471 Vanowen Street • N. Hollywood, Calif.

minute can be obtained. It has a positive automatic feed which does not require an operator. The packer can be equipped with an automatic feed for positioning reshipper cases, or a magazine feed to open and feed knockdown cases to the packer.

MFR.: A-B-C Packaging Machine Corp., Box MM, Tarpon Springs, Fla.

Decorated Cans

DESCRIPTION: Cans with a textured finish have a new "look" and an easier-to-grip surface. The textured finish is well suited for lithographed or coated metal cans.

FEATURES: Finishes range from a soft eggshell effect through a "stipple" to a rough, heavily ridged effect. New decorative aspects will offer packers increased opportunities for greater shelf identification for their products.

MFR.: American Can Co., 100 Park Ave., New York 17, N. Y.

Circulars, Bulletins Catalogues, Brochures

Pesticides: "Pesticides and Public Policy," a 24-page booklet, offers a studied review of the sensational publicity and unfounded statements on pesticides — National Agricultural Chemicals Assn., 1145 19th St., N.W., Washington, D. C.

Meters, Feeders, Controls: Valves, control systems, totalizing meters, waste treatment equipment, flow meters, etc., are described in an 8-page bulletin (ref. no. 0001.20-1)—B-I-F Industries, Providence 1, Rhode Island.

Liquid Handling Pump: Bulletin describes a high pressure, 400 lbs., stainless steel pump which will handle most processing liquids, 1-30 gpm.—Sonic Engineering Corp., 146 Selleck St., Stamford, Conn.

C-8 TUC Cutter: Fully illustrated booklet describes the C-8 TUC Cutter and explains how case-per-ton-recovery-increases and quality-upgradings of processed sweet corn are accomplished—The United Company, TUC Road, Westminster, Md.

Water Blanchers: Bulletin TL-1 gives a comprehensive report on performance, capacities and designs of Rietz thermascrew water blanchers and steam blanchers—Rietz Manufacturing Co., Santa Rosa, Calif., or West Chester, Pa.

Communications Equipment: A two-way radio bulletin (ECR-497B) shows communication equipment available for businesses such as amplifiers, portable hand-carried two-ways, desk-type base stations, floor mounted units, microphones, remote control, etc.—General Electric Communication Products Dept., P.O. Box 4197, Lynchburg, Va.

Meat Cans: Bulletin entitled "Meat Cans and Meat Can Closing Equipment" gives detailed information on can sizes, product capacity, shipping data, and comprehensive descriptions of various closing machines—Continental Can Co., 100 E. 42nd St., New York 17, N. Y.

Chemicals From Corn: Properties, types, and uses for Argo brand methyl glucoside, polyoses, zein, glucuronolactone, insitol, phytic acid, and sodium phytate are described in a 4-page folder entitled "Chemical Products from Corn"—Corn Products Div., Corn Products Sales Co., 10 E. 56th St., New York 22, N. Y.

NET PROFITS
with
SEAFOOD
and
Robins

Fancy restaurants have nothing on today's budget-minded homemaker when it comes to serving up delicious seafood dinners. Modern processing machinery has made it easy for her . . . and profitable for you.

For instance, have you seen the Robins Vibro Batter and Breading Machine for automatic processing of oysters, shrimp, fish, scallops and other foods? It's simply constructed, compact, easy to clean. It has cut breading problems to almost nothing and eliminated waste batter and breading. It's just one of the many Robins' designs that is boosting production of quality products and reducing labor costs and maintenance time for food processors.

Why not see how Robins' 105-year experience in the food processing machinery industry can give you more for your equipment dollar. Write or call for immediate service or a copy of our catalog.

A.K.Robins AND CO, INC.
Manufacturers of Food Processing Equipment Since 1855
713-729 E. Lombard Street • Baltimore 2, Md.

Canned Foods vs Fresh in Institutional Feeding

"What can I do that I am not now doing to make back some of the profit spread that I have lost during the years since 1946?" This question is being asked by restaurant operators all over the country. Increase menu prices is an obvious answer. However, it is not necessarily a practical one and can be disastrous.

In a recent study which examined the problems of all types of eating establishments, it was indicated that canned foods have many advantages in maintaining consistent quality while cutting costs. The study points out that an 18% savings can be realized if canned instead of fresh vegetables are used in making beef stew. A 65% savings in preparation costs was indicated in comparing the use of canned and fresh carrots.

Another economy brought about by the use of canned foods is reduced kitchen space. One firm has reduced its kitchen space by 20%, thereby increasing its seating space from 540 to 580. This move also brought about a savings in preparation time.

Many restaurant operators have not taken advantage of canned foods because of:

1. Habit and tradition—The tradition in institutional feeding stems from the Continental opinion that "nothing is better than vegetables and fruits from the garden." Unless a restaurant operator has a garden of his own, the fresh produce he uses is very often not as fresh as the canned foods which have been packed soon after harvest.

2. Americana nostalgia — Owners feel that they should serve food that will bring back memories of the "meals that mother used to make."

—Leo Nejelski, Nejelski & Co., management counsel, at Institutional Food Editorial Conference.

Consumers Want Quality Foods

New foods of the near future will shrink the cupboard to one quarter of today's size. The biggest change will be in new instant or dehydrated foods; housewives will buy almost any instant food except meat.

A few years ago, ease of preparation was the most important feature of foods. Now the housewife demands quality as well as convenience. Convenience foods must have the appeal of fresh foods, in flavor, appearance and aroma. To get this appeal, more processing will be done at the point of growing—in the field.

—Grant Horsey, president, Salada-Shirriff-Horsey, Boston, Mass.

Industry Is Bogged Down With Look-Alike Labels

Someone once decided that his product would attract more attention if the brand name of the jelly was hidden behind a bunch of grapes. This way, the consumer would know it was grape jelly that she was buying. Now all labels look alike—no planning, no originality—no brand individuality—just bunches of fruit. One would think that preserver labels appeal only to illiterates.

The preserving industry had better start planning. It should identify itself more closely with research in packaging—new fruits—new manufacturing methods—and most of all—new merchandising ideas.

It has the means. This Industry

ASK US HOW
YOU CAN REDUCE
Handling COSTS
WITH
ABC
PICKING
BOXES
that

- PALLETIZE
- STACK EVENLY
- AUTOMATIC DUMP
- REDUCE BRUISE DAMAGE
- HAVE LONG LIFE
- SAVE SPACE

ABC's vast forest, sawmill and factory facilities assure immediate service.

We will gladly send information on the use of wooden picking boxes in mass production and automation handling methods.

American Box Corporation
2740 HYDE ST. SAN FRANCISCO 19, CALIF.

Call on Rhodia "Odor Engineering" to solve your malodor problems in plant or product

Rhodia Inc. is the world leader in industrial odor control and reodorization technology and a primary producer of industrial aromatic chemicals. It offers fully qualified consultation service anywhere in the United States without cost or obligation.

RHODIA INC., 32-10
60 East 56 St., New York 22, New York
Gentlemen:
Please send me Rhodia literature.
My problem is: (please give specifics)

NAME
ADDRESS
CITY STATE

RHODIA INC.
60 East 56 St., New York 22, New York
(Phone: PLaza 3-4650)

could save ¼ the money it used giving away "5c off" coupons, free good deals, etc. (that are used for everything except advertising) and spend that money to increase consumption. Preserves would still have outside competition. But a little more volume industry-wise would be just a little more insurance.

—Joseph A. Raphael, president, National Preservers Assn., at association's annual meeting.

NEW LOOK LABEL for Lawry's Seasoned Salt is pointed out by California's candidate for the National Miss Press Photographer's competition, Darlene Tompkins. The new design was created by industrial designer Saul Bass. The big "L" is the new trademark for all Lawry products. Jars are supplied by Glass Container Corp. and Ball Bros. Co.; closures, Phoenix Metal Cap Co.; poly-sifter, Wheeling Stamping Co.; labels, Lustour Co.

Price Marking Machine For Packer's Line

A new machine for volume price marking of cans, jars and bottles has been developed. This high-speed price marker can be used at either the packing line or warehouse. It fits into a conveyor line at any convenient point.

The marker is self powered and fully automatic. No attention is required during operation. It will mark up to 1000 units per minute.

—Adolph Gottscho, Inc., Hillside 5, N. J.

Merchandising Memos

The **packaging industry** will double in size in the 1960's, growing from an annual volume of about $16 billion at the beginning of the decade to $35 billion at its close—T. W. Sharp, director of product marketing for Union Carbide Plastics Co., Div. of Union Carbide Corp.

An intensive promotional program to better acquaint housewives with the benefits of **instant potato products** is being undertaken by Instant Potato Products Assn., a newly formed group representing a $25 million industry.

Minute Maid Corp., Orlando, Fla., is testing frozen orange juice packed in aluminum cans in four market areas — Atlanta, Philadelphia, Cleveland, and Dallas - Ft. Worth. The outcome of the tests will help determine the firm's **future use of aluminum** as a packaging material.

Try one and get one free promotion has been launched by Capitol Food of Los Angeles, Calif. Each package of the firm's Oh Boy Spaghetti and Meat Balls Dinner carries a label explaining how a free dinner can be obtained.

The Florida Citrus Commission, Lakeland, Fla., is conducting a heavy summer promotion directed to housewives who want "Real" Citrus Juices. Ads with recipes for **Florida Citrus Coolers** will appear in various consumer magazines. Banners and other display materials were made available to retailers.

In a recent consumer survey made for Owens-Illinois Glass Co., Toledo, Ohio, figures showed that **additional promotion is desirable** to increase sales of tomato juice and tomato cocktail.

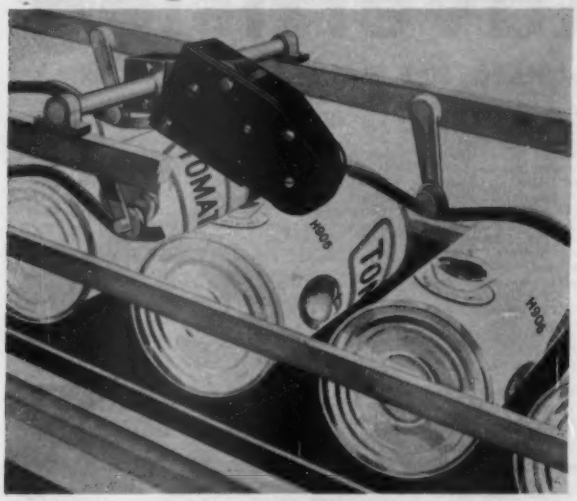
A vinegar and related-item promotion, **"Heinz Salad Symphony,"** is being sponsored by H. J. Heinz Co. Its goal is to make summer salad sales sing by promoting the summer symphony of fresh fruits and vegetables used in salads with Heinz vinegars.

"What French's Mustard Does to a Hot Dog" is the theme of a summer-long promotion being sponsored by R. T. French Co., Rochester, N. Y. It includes complete in-store displays as well as a national advertising campaign.

An award for **excellence of design and reproduction** was recently presented to Libby, McNeill & Libby and Schmidt Lithograph Co. for the labels of Libby's two new products—Pineapple Raspberry Drink and Pineapple Strawberry Drink. The award was given by the Lithographers and Printers National Assn. during its annual convention.

See this space next month for our regular every-other-month department:
Association News

New Midget Coder for Labelers



Attaches to any roll-through labeler. Fits in minimum space. Completely self-powered. Registers imprint in any desired location on wraparound jar, can, bottle labels. Never needs re-inking – "Magic Ink Roller" gives 100,000 to 500,000 markings. Just replace when dry.

Write for Bulletin "ROL-5"

First and foremost in automatic production-line CODING MARKING and IMPRINTING machines

Gottscho®

GOTTSCHO Dept. CP
HILLSIDE 5, N.J.

In Canada: Richardson Agencies, Ltd. · Toronto & Montreal

CANNER/PACKER Yearbook Number to be published Sept. 15, 1960

This is your yearly reference issue containing complete up-to-date statistics on canned, glass, dry and frozen foods.

Production, procurement and traffic men will find this coverage vital in their daily work—

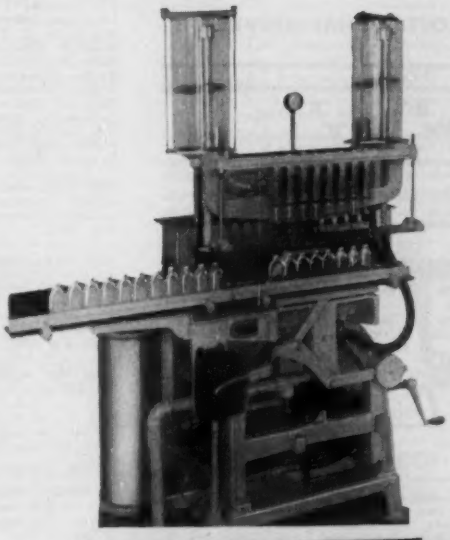
- —Gold Medal award winners for outstanding new or improved products for food processors
- —Processed food equipment and supplies listed in a classified index, suppliers listed alphabetically
- —Top scientists' reports on research advances
- —Leading executives summarize the status of food products in their fields.

Processors advertising in the Yearbook Number will have their ads included in a separate promotional booklet called Food Distribution—to be distributed to 3000 major buyers of processed foods.

Remember, the Yearbook Number is in addition to the regular Sept. 1st issue.

PROBLEM

Limited production – several product types



ANSWER

Semi-automatic vacuum filling, SAMCO JR. style

This machine was "tailored to fit" the need for no-drip vacuum filling of smaller runs. Handles a variety of liquids and a wide range of container sizes... from one ounce to one gallon. Six filling heads... with room for more if desired. Very simple to adjust — only 5 to 10 minutes required for size changes.

It's the ideal in-between filling machine — time tested and proved beyond question in plants where flexibility is a "must" requirement. Write for complete information.

another **SEMI-AUTOMATIC** by

PNEUMATIC

Pneumatic Scale Corp., Ltd.
79 Newport Avenue, Quincy 71, Mass. *Branches, Chicago and New York*
Please send us complete information on Samco Jr.

NAME_____ **Position**_____

COMPANY_____

ADDRESS_____

Classified Advertising

Please address box advertisers: "Box — c/o Canner/Packer, 59 E. Monroe St., Chicago 3, Ill."

RATES: 15c per word, 75c extra for blind box number. Minimum charge $4. Terms net prepaid. Each word of capital letters counted as two words. Classified display 1 time $25 per inch.

PROFESSIONAL SERVICES

FOUNDED 1922

Food and Drug Research Laboratories
INCORPORATED

Maurice Avenue at 58th Street, Maspeth 78, New York City

WESTERN REPRESENTATIVE: WOLFGANG HUBER, Ph.D.
3079 Lombard St., San Francisco 9, Calif. Tel: Prospect 6-1415

WISCONSIN ALUMNI RESEARCH FOUNDATION

LABORATORY SERVICES
for the FOOD, FEED, DRUG and CHEMICAL INDUSTRIES
Analyses, Biological Evaluation, Toxicity Studies, Insecticide Testing and Screening, Flavor Evaluation.

Project Research and Consultation

Write for Price Schedule
P. O. Box 2217 • Madison 1, Wis.

FOR SALE—M & E

For Sale—Kettles, Tanks, Labelers, pumps, fillers, filters, mixers, vacuum pans, case gluers and sealers, cappers, etc. Address all inquiries and send list of surplus equipment. Ace Equipment Co., 6825 S. Kenwood Ave., Chicago 37, Ill.

Still in original crates! 26 flat belt conveyor systems. Inclined; Belting 30" wide x 12' lg. Belting is fabricated from 304 stainless steel wire. Send for photo. Davenport, Box 152, Louisville 18, Ky. Gl. 8-9838 evenings.

Stainless Steel Oxygen Cylinders, type 304; 10 gauge, 400 P.S.I. 24" X 45", 77 gallons ¼" pipe thread each end. Model J1, $300.00 value price $99.50. Net weight 150 lbs., shipping weight 250 lbs. Model F1 same specifications as above except 16 gauge, size 8½" X 18" weight 14 lbs., Price $14.50, lots of 8 to case $14.25. All brand new Air Corps. surplus. F.O.B. Baton Rouge, Louisiana. Illinois Mfg. & Supply Co., 1829 S. State Street, Chicago 16, Illinois, Victory 2-6633. Dept. CP.

For Sale—FMC Pulper Model #101, Fitzpatrick Riving Machine, Sterling Dicer, Kettles, Tanks, Labelers, Pumps, Case Gluers and Sealers, other processing equipment. Send us your inquiries and list of idle equipment. Loeb Equipment Supply Co., 830 W. Superior St., Chicago 22, Ill.

CHOICE Equipment at the RIGHT Price from your FIRST Source! Stainless Steel Tanks and Kettles; all sizes stocked; FILLERS by Pneumatic Scale, Kiefer, FMC, Berlin-Chapman, Herlx, Filler Machine Co.; POWDER FILLERS by Stokes & Smith, Semi- and Fully-Automatic, Triangle Elec-tri-Pak Filler, Meteor S.S. Granular Fillers. TUBE & JAR Fillers by Stokes, Colton and others; Automatic Labelers by Pneumatic, World, N. J. Labelrite, others; Can Labelers by Standard Knapp, Burt, Kyler, Nu-Way, others; Bottle & Jar Cleaners; aut. & semi. CAPPERS by Resina, Pneumatic, U.S. Consolidated Capem and others; Continental, American Can Closers, Bliss Automatic Double Seamer. STAINLESS Reactors, Heat Exchangers, Vacuum Pans, Pulpers, Juice Extractors, Colloid Mills, Dicers, Peelers. SEND FOR COMPLETE LISTS. FIRST MACHINERY CORP., 209-289 Tenth St., Bklyn. 15, N. Y. Phone: STerling 8-4672.

FOR SALE—Acme Silver Stitcher, post type carton stitcher. In excellent working order. F.O.B. price northern Wisconsin $275.00. With electric motor. Box 3760.

FOR SALE—Keystone steam generator manufactured by Erie City Iron Works 1953. Size 600hp. 2 drum bent tube. 2-inch od heating surface 3,000 sq. ft. Furnace volume 289 cu. ft. Nominal rating 20,700 pounds an hour, operating pressure 125 pounds, number 6 fuel oil. Also 19,000 fuel oil storage tank. Box 5760.

ONE TUC FLOTATION WASHER, motor driven, 1 HP 220-440 V., 60 Cycle, 3 phase, Serial #958 with Tuc Silker, motor driven also, ¾ HP, 220-440 V., 60 Cycle, 3 phase, Serial #843 mounted so helicoids may be rolled out for cleaning. Griffin Manufacturing Co., P.O. Box 1618, Muskogee, Okla.

1 Nu-Way Caser—#300 cans, packs 24/300 or 48/300, Ser. #101547
1 Nu-Way Caser—#303 cans, Serial #101045
1 Heavy Duty Standard Knapp Labeling Machine
1 #400 Canco Closing Machine, Aux. Disc & Topper, set for #303 cans
1 Herlx Catsup Filler—14 Valve, Model HE-14-49
1 Ayers 9 pocket Tomato Filler, Serial #9702
1 Russell Continuous Cooker for 8 oz. cans
1 Alcoa Catsup Capper, Type AC No. 29
1 160 Station S/S Merry-Go-Round, Drive & Motor
1 #10 OB Closing Machine, Steam Flow
150 17 Quart Aluminum Buckets
150 17 Quart Aluminum Dish Pans
1 Rapids Elevator
1 Canco MT Elevator—8 oz. to 46 oz. Cans, Motor & Switches
1 Indiana Pumpkin Wilter
3 1000 Gal. Cyprus tanks with Kookmore coils, traps, etc.
1 30 ft. Catsup cooling unit
1 World Catsup Bottle Labeler for 12 oz. and 14 oz. bottles
3 FMC Corn Cutters
3 Peerless Double Corn Huskers
1 BC Corn Silker
1 Wolfinger Beet Slicer
Taormina Co., P.O. Box 475, Donna, Texas

FOR SALE — 5,000-4,000-3,000-1,000-800-650-500 400 gal. S. S. Tanks; 1500 gal. S. S. Vertical Vacuum Tank with heating coil; Fitzpatrick Model D. Comminuting Machine; 300 gal. jacketed S. S. Groen type N Kettle; 500 gal. S. S. low press jacket mixing Tanks; Eight S. S. sanitary heat Exchangers, 50 to 250 sq. ft.; Vacuum Pans; Evaporators; Dryers. Best equipment Company, 1737 W. Howard St., Chicago 26, Ill.

FOR SALE—York Freon 12 compressor, 40 ton; Alvey 16" live-roller conveyors, total 700'; Groen 150 gallon shallow stainless steel Kettles. 200 gallon sigma mixers. Standard Knapp No. 429 Top Gluer. Niagara Stainless Pressure Leaf Filters, 500, 60, 57 sq. ft. Hope Piston Filler. SEND US YOUR INQUIRIES. PERRY EQUIPMENT CORP., 1405 N. 6th St., Phila. 22, Pa.

EQUIPMENT FOR SALE—14-valve Herlx Stainless CATSUP FILLER HE-14, 14 oz. bottles, conveyor feed, good condition, $950. #303 Tuc "CAF" CORN SHAKER, used 3 mos., $750. Standard-Knapp 46 oz. Type "A" LABELER, Ser. #11430, $1275. A-B 8 oz., #303, #2½ & #10 Continuous COOKERS & COOLERS. #2/303 New-way & #10 CASERS. Urschel Model "O" SLICER & ⅛" Model 36 STRIP-CUTTER. #50 FMC PULPER. #2½ FMC HANDPACK FILLER. Continental 4-head CR CLOSING MACHINE, 300, 303 & 307 change parts. 30-150 Gal. STAINLESS KETTLES. 12-v. FMC STAINLESS SOUP FILLER, 8 oz. #1 T. Get complete catalog. HORNE MACHINERY CO., INC., 1188 Harrison St., San Francisco 3, Calif.

WANTED TO BUY

WANTED—1 Urschel Model "J" Dicer equipped for ¼ inch dices. Monticello Canning Co., Inc., Crossville, Tenn.

HELP WANTED

Wanted—College graduate major in chemistry or food technology for work in Midwest pickle plant quality control and research department. Replies will be held in strict confidence and should include education, age, experience, and present salary. Good opportunity for qualified person. Box 1560.

Wanted—PRODUCTION SUPERINTENDENT (Canned Dog Food). Must be experienced and cost minded. Modern plant. Salary. S. E. Mighton Co., Bedford, Ohio.

GENERAL MANAGER—Wanted General Manager of company entering into food processing and distribution business on large scale. Must have proven record of success in production and sale of food products. Send full resume and snapshot to Box 1262, Dallas, Texas.

BUSINESS OPPORTUNITIES

MANUFACTURERS REPRESENTATIVES—Excellent opportunities for aggressive manufacturer's representatives to sell bottling line equipment for internationally recognized company. Heavy advertising and sales promotion support. Experience in beverage and brewing fields preferred. Territories open in several leading metropolitan areas—must be filled in the very near future. For immediate action, tell us how you qualify. Send all pertinent information to Box 1860.

ADVERTISERS IN THIS ISSUE

See page 59 for COMING EVENTS CALENDAR

American Box Corp. 55
American Can Co. .....3rd Cover
American Steel and Wire Div., Cyclone Fence Dept., U.S. Steel...17
Anchor Hocking Glass Corp. 18-19
Angelus Sanitary Can Machine Co...10
Aseptic-Thermo Indicator Co. 53

Brockway Glass Co., Inc. 22
Burt Machine Co. 50

Canners Exchange 12
Clipper Belt Lacer Co. 47
Continental Can Co. 14
Corn Products Sales Co. 3
Cromwell Paper Co. 15

Diversey Corp. 44, 45
Dow Corning Corp. 49

Fairfield Chemicals, Food Machinery & Chemical Corp. 6
Food Machinery & Chemical Corp....11
Fuller Co., H. B. 38

Gaylord Container Div., Crown Zellerbach Corp. 39
Gottscho, Inc., Adolph 57

Hardy Salt Co. 52
Heekin Can Co. .....4th Cover
Hoffmann-La Roche Inc.....2nd Cover

Milwaukee Motive Mfg. Co. 51
Morton Salt Co. 8-9

Niagara Blower Co. 40

Paulson Brothers Industries, Inc. 48
Penick & Ford, Ltd., Inc. 23
Pneumatic Scale Corp., Ltd. 57

Refined Syrups & Sugars, Inc. 13
Rhodia Inc. 56
Robins and Co., Inc., A. K. 54

Scott Viner Co. 41
Shell Chemical Co. 43
Somerville Dressed Meat Co. 16
Sunkist Growers 20-21

Ton-Tex Corp. 40

U.S. Steel, American Steel and Wire Div., Cyclone Fence Dept. 17
Urschel Laboratories, Inc. 4

Warner, Inc., Lansing B. 12
White Cap Co. 34-35
Wooden Box Institute 48

Zeiss, Inc., Carl 46

COMING EVENTS CALENDAR

August

12—**Tomato Field Day,** Horticulture Farm, Michigan State University, East Lansing, Mich.

21-24—**National Assn. for the Specialty Food Trade,** 6th annual National Fancy Food & Confection Show, Hotel Astor, New York City.

22-23—**American Soybean Assn.,** 40th annual conference, and annual meeting of the National Soybean Processors Assn., Hotel Peabody, Memphis, Tenn.

24-26—**Virginia-Carolina Peanut Assn.,** 1960 convention, Cavalier Hotel, Virginia Beach, Va.

26—**California Olive Assn.,** annual membership meeting, San Francisco, Calif.

September

1-7—**International Union of Nutritional Sciences,** Fifth International Congress on Nutrition, Sheraton-Park and Shoreham hotels, Washington, D. C.

16-20—**American Meat Institute,** 55th annual meeting, Palmer House, Chicago, Ill.

October

3-4—**Peanut Butter Manufacturers Assn.,** annual meeting, Woodner Hotel, Washington, D. C.

6-9—**Florida Canners Assn.,** 29th annual convention, Fountainebleau Hotel, Miami Beach, Fla.

11-15—**American Council of Independent Laboratories,** annual meeting, Deauville Hotel, Miami Beach, Fla.

12-14—**Mayonnaise & Salad Dressing Mfrs. Assn.,** 27th annual convention, Drake Hotel, Chicago, Ill.

18-21—**American Dietetic Assn.,** annual meeting & exhibit, Sheraton-Cleveland Hotel and Cleveland Auditorium, Cleveland, Ohio.

19-21—**National Pickle Packers Assn.,** Pickle Fair, annual meeting and machinery exhibit, Edgewater Beach Hotel, Chicago, Ill.

23-26—**National Frozen Food Assn.,** annual convention and exhibit, Statler-Hilton Hotel, New York, N. Y.

24-27—**Institute of Sanitation Management,** annual conference and show, Sheraton-Cadillac Hotel, Detroit, Mich.

31-Nov. 4—**American Management Assn.,** packaging management course, Hotel Astor, N. Y., N. Y.

November

1-3 — **Point-of-Purchase Adv. Institute,** 1960 exhibit, New York Coliseum, N. Y., N. Y.

3—**Illinois Canners Assn.,** fall meeting, LaSalle Hotel, Chicago, Ill.

4-5—**Florida Vegetable Canners Assn.,** 2nd annual convention, Deauville Hotel, Miami Beach.

8-10—**Material Handling Institute,** Central States Show, Kentucky Fair and Exposition Center, Louisville, Ky.

13-16—**Georgia Canners Assn.,** annual convention, General Oglethorpe Hotel, Savannah, Ga.

14-15—**Wisconsin Canners Assn.,** 56th annual convention, Schroeder Hotel, Milwaukee, Wis.

20-21—**Pennsylvania Canners Assn.,** 46th annual convention, Yorktowne Hotel, York, Pa.

21-22—**Michigan Canners & Freezers Assn.,** fall meeting, Pantlind Hotel, Grand Rapids, Mich.

28-29—**Ohio Canners & Food Processors Assn.,** 53rd annual convention, Deshler-Hilton Hotel, Columbus, Ohio.

28-Dec. 1—**Vegetable Growers Assn. of America,** annual meeting, Schroeder Hotel, Milwaukee, Wis.

December

1-2—**New York State Canners & Freezers Assn.,** 75th anniversary meeting, Statler-Hilton Hotel, Buffalo, N. Y.

5-6—**Tri-State Packers Assn.,** annual convention, Lord Baltimore Hotel, Baltimore, Md.

10-14—**National Food Brokers Assn.,** 57th annual convention, all loop hotels, Chicago, Ill.

January

8-10—**National Preservers Assn.,** annual convention, Galt Ocean Mile Hotel, Ft. Lauderdale, Fla.

12-13—**Canners League of California,** 38th annual fruit & vegetable sample cutting, Fairmont Hotel, San Francisco, Calif.

Merchandising Calendar

Sept. 1-30: Natl. Better Breakfast Month (Cereal Institute, Inc., 135 So. LaSalle St., Chicago 3, Ill.).

Sept. 18-25: Cranberry Harvest Festival (Edaville Railroad, Rupe Wunschel, South Carver, Mass.).

Sept. 25-Oct. 1: 100% Pure Maple Syrup Week (100% Pure Maple Syrup Insti., St. Johnsbury, Vt.).

Oct. 1-31: Natl. Rice Harvest Festival (Rice Consumer Service, Realty Bldg., Louisville 2, Ky.).

Oct. 1-31: Shrimp Fiesta (Special Publications Serv., Frances Smith, 420 Lexington Ave., N. Y. 17, N. Y.

Oct. 1-31: October Cheese Festival (Amer. Dairy Assn., 20 N. Wacker Dr., Chicago 6, Ill.).

Oct. 9-Oct. 15: International Pizza Week (International Pizza Club, Box 213, New York 1, N. Y.).

Oct. 15-Nov. 30: Kraut - Pork - n - Apple Dinner Season (Natl. Kraut Packers Assn., 202 S. Marion St., Oak Park, Ill.).

Oct. 17-23: Natl. Fish'n Seafood Week (Natl. Fish'n Seafood Week Committee, Natl. Fisheries Inst., 1614 20th St., N.W., Washington 9, D.C.).

Oct. 24-29: Natl. Honey Week (Amer. Honey Insti., 114 N. Carroll St., Madison 3, Wis.).

Nov. 1-13: Asparagus Week (New Jersey Asparagus Industry Council, Inc., Rene Gossiaux, Jr., Executive Dir., Centerton, N. J.).

Nov. 15-Dec. 31: Holidays are Pickle Days (Natl. Pickle Packers Assn., 202 S. Marion St., Oak Park, Ill.).

I.F.T. Sections Calendar of Meeting Dates

Western

Northern Calif.: August 18.

Puget Sound: Next meeting will be held in September, 1960.

Rocky Mountain: Tentative date for next meeting—September, 1960.

So. Calif.: Sept. 21, Presentation of award to Food Man of the Year.

Midwest

Minnesota: Next meeting will be held in September or October, 1960.

Chicago: Next meeting will be held October 15, 1960. Following a short meeting with the Indiana Section, members will attend a football game—Indiana-Ohio State—and a luncheon.

Eastern

Maryland: Next meeting will be held October 15, 1960, 7:00 p.m., at Stafford Hotel, Baltimore, Md. Dr. Charles F. Woodward, chief, plant products laboratory, USDA Eastern Utilization Research & Development Div., Philadelphia, Pa., on "Research on Plant Products at the Eastern Regional Laboratory."

Northeast: Next meeting will be held in the fall.

Washington: Next meeting will be held in September, 1960.

Southern

Florida: Next meeting will be held September 30 and October 1, at University of Florida, Gainesville, Fla. Joint two-day meeting with Dixie Section, with reports on "Research Progress in Florida & Other Southern Universities."

How Good Is Your Record on Short Weights?

Short weight should be a matter of the gravest concern for every member of the U.S. processed food business.

Not only does the practice give the offender a most unfair advantage over his competitors—either in raw material costs or in retail pricing—but it also strikes at the very basic principle of our industry.

100 Cents Worth per Dollar

This principle is that when the consumer buys canned, dry, frozen or glass packaged foods, she gets full measure for her dollars. She is not purchasing bones or feathers or pods that have to be thrown away. She is not acquiring merchandise which will deteriorate in storage. She is not buying products which fluctuate widely in quality.

When the weight in a packaged food is short, obviously these yields are affected, and this can be of the greatest importance to budget-minded young homemakers, or to mass-feeding buyers. They must be able to count on 16 ounces in every pound of processed products they buy. If they find they cannot do so, their trust in our foods will be undermined.

How Good Is the Record?

Fortunately, the percentage of processed food firms which short-weight their customers, either accidentally or by design, is small. A survey made by the USHEW Food & Drug Administration reveals that, out of 106,695 packages of U.S. food and beverage examined, only half of one per cent (0.5%) were short 5% or more. Only one package in sixteen was as much as 1% low.

However, 15.2%, or one package in seven, was short to some degree, and some classes of product were especially bad offenders. A serious 39% of all corn meal was underweight, and butter and margarine had records of 33.6% and 29% below declared levels. See the accompanying table for data on other industry divisions.

What Are the Problems?

In these highly competitive days, it is essential to avoid giving away your product. When you try not to do this, however, you face problems.

Moisture loss, for example, can convert an overweight dry food to an underweight one when the package stays longer than anticipated on the shelf.

Uneven fill—due to varying sizes and shapes, to stickness and lumpiness, etc.—may produce packages which range from overfill to underfill.

The human factor, also, is important. Carelessness or ignorance by employees, can result in underfilling.

Processed foods may weigh what they say they do and still have the effect of defrauding buyers.

One example is the carton which is only partially packed with food. The rest is padding or air.

Another is the pack where the basic commodity is underfilled and the space taken up with another packing medium, such as syrup or brine.

Another is the package which is tall and wide but shallow, or otherwise is shaped to make it appear more generous in dimensions than it really is.

Also, there is the package which conceals its net weight statement on a back panel, in the middle of some design on the label, or in faint or small type.

What Per Cent Is Short Weight?

According to a report recently released by U. S. Food & Drug Administration

Rating	Commodity	% Short At All	Short 1% or More	Short 5% or More
1	Corn meal	39.3%	21.4%	...
2	Butter	33.6%	14.4%	...
3	Oleomargarine	29.0%	4.0%	...
4	Salad dressings	27.1%	15.6%	3.1%
5	Coffee	26.4%	4.5%	0.9%
6	Sugar	24.1%	3.6%	...
7	Farina, oatmeal	23.2%	8.7%	...
8	Vegetable oil	22.7%	12.3%	1.0%
9	Vegetable shortening	22.2%	1.1%	1.1%
10	Prepared cake mixes	18.6%	3.9%	...
11	Rice	18.5%	8.7%	...
12	Bread	17.5%	12.6%	1.9%
13	Dry soup mixes	17.2%	3.4%	...
14	Peanut butter	17.0%	4.0%	...
15	Macaroni products	16.5%	11.6%	...
16	Sliced cheese	15.5%	4.2%	...
17	Ground spices	14.1%	11.3%	2.8%
18	Dried vegetables	13.0%	1.0%	...
19	Tea	12.6%	7.7%	...
20	Nuts in the shell	12.2%	7.8%	2.2%
21	Dried fruits	12.0%	8.0%	...
22	Candy in film bags	11.2%	6.5%	...
23	Dessert & pudding powders	10.3%	5.1%	...
24	Cookies & crackers	10.2%	6.5%	2.8%
25	Candy in boxes	10.0%	9.0%	...
26	Frozen fish, ready-to-cook	9.0%	3.4%	...
27	Breakfast foods, ready-to-eat	7.8%	5.9%	...
28	Frozen fruits & vegetables	7.3%	2.8%	...
29	Dried milk	7.0%	3.0%	...
30	Jams & jellies	6.0%	2.0%	...
31	Shelled nuts (tied with above)	6.0%	2.0%	...
32	Potato & corn chips	5.0%	4.0%	1.0%
33	Frozen fruit juice concentrate	4.2%	...	...
34	Candy bars	2.7%	2.7%	0.9%
35	Baby foods	1.1%	...	...

What To Do?

Every reputable packer of processed foods must be against short weights and misleading packaging practices, because he recognizes them as unfair competitive devices, and also because he knows they damage the whole industry in the eyes of the consumer. Few of you who read these words will knowingly be guilty of them.

Yet it will pay all processors to check their packaging practices, to make sure you are not inadverently guilty.

Begin by checking the table above, to see how your branch of the business rates as a whole. Then look at your labeled cans and jars, your wrapped or printed cartons, and see if, in your opinion, they convey all necessary information and do not promise more than they can deliver. Finally, talk to your production and quality control associates, to make sure they are as concerned as you are with correct container fill—and that they have all necessary information to do their jobs well in this respect.

El Stark
Editor

3 YEAR JUICE TRENDS ANALYZED

New national study reveals the changing juice consumption habits of urban America

Covers virtually all flavors of fruit and vegetable juices and fruit drinks in ready-to-serve, concentrate and chilled forms. Provides complete—easy-to-interpret—graphic analyses . . . vital to executives and market planners in the fruit and vegetable juice industry.

- **compares summer '57 with summer '59**
- **pin-points regional markets for these products**
- **shows who drinks the products**
- **discusses changes in taste preferences**
- **container size mix for fruit drinks**

Summer Servings
in Urban American Homes
Fruit Juice Drinks
Fruit & Vegetable Juices
A NATION-WIDE MARKET STUDY PREPARED BY CANCO MARKETING DIVISION · AMERICAN CAN COMPANY · 100 PARK AVENUE, N. Y.

GREAT CONTAINER IDEAS COME FROM... CANCO

CANCO DIVISION
AMERICAN CAN COMPANY

FREE...MAIL THIS COUPON NOW!

Canco Marketing Division, American Can Company
Dept. SP-2, 100 Park Avenue, New York 17, N. Y.

Please send me your new 32-page juice study "Summer Servings in Urban American Homes"

NAME_____

COMPANY_____

ADDRESS_____

CITY_____ ZONE_____ STATE_____

HEEKIN produces a complete line of metal containers that are used for thousands of products on the market today.

Through HEEKIN personal service many, many users of metal containers have their packaging problems solved every year.

The fact that HEEKIN is successful in making metal packages . . . and has been for over a half century . . . is proof positive of the quality of cans and service you will receive.

Let HEEKIN help you with your packaging problems. Heekin has the research, know-how and equipment to do the job.

Next time call for personal service

THE HEEKIN CAN CO.

H
HEEKIN
Product Planned
CANS

PLANTS IN OHIO, TENNESSEE & ARKANSAS—SALES OFFICES: CINCINNATI, OHIO; SPRINGDALE, ARKANSAS